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ABSTRACT

The Institute of Museum and Library Services (IMLS) undertook a study of the use of technology and digitization activities in libraries and museums nationwide. This report first presents key cumulative findings of the survey that measured technology use and digitization activities by museums and libraries. It then presents a series of tables and graphs that compare survey responses by museums and libraries based on a variety of categorizations. The most significant of these categorizations is the one on which most sections of this report are based: museum, public library, academic library, and State Library Administrative Agency (SLAA). Further categorizations are by such measures as budget size, size of populations served, and current extent of technology use and digitization. Action recommendations based on the survey results are outlined, and the background on the study and methodology are given. The remaining sections present survey results for each of the following: museums, public libraries, academic libraries, SLAAs, and IMLS Roles. The survey is appended. (Includes 42 figures.) (AEF)

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Institute of Museum and Library Services

Status of Technology and Digitization In the Nation's Museums and Libraries 2002 Report

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Table of Contents

Introduction

Executive Summary

Action Recommendations Based on the Survey Results

Background on Study and Methodology

Survey Results for Museums

Survey Results for Public Libraries

Survey Results for Academic Libraries

Survey Results for State Library Administrative Agencies (SLAAs)

Survey Results: IMLS Roles

Appendix: Survey

Introduction

> The status of the Internet is shifting from being the dazzling new thing to being a purposeful tool that Americans use to help them with some of life's important tasks. As Internet users gain experience online, they increasingly turn to the Internet to perform work-related tasks, to make purchases, and do other financial transactions, to write e-mails with weighty and urgent content, and to seek information that is important to their everyday lives.[1]

This excerpt from *Getting Serious Online*, a 2002 study by the Pew Internet and American Life Project, notes the public's increasing use and reliance on the Internet as a practical tool. This changing approach to the Internet and other powerful emerging technologies is also changing the way museums and libraries interact with their communities.

The American public has much to gain from the adoption and implementation of technology by museums and libraries. Technology connects more people to more of the services and information only museums and libraries provide. It enables access to unique cultural, scientific, and artistic collections; to vast information and research resources; and to educational opportunities for students of all ages.

It is within this context that IMLS undertook a study of the use of technology and digitization activities in libraries and museums nationwide.

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[1] John B. Horrigan and Lee Rainie, *Getting Serious Online: As Americans gain experience, they use the Web more at work, write emails with more significant content, perform more online transactions, and pursue more activities online* [online PDF] (Washington: Pew Internet & American Life Project, March 3, 2002 [cited April 2002]); available at http://www.pewinternet.org/reports/toc.asp?Report=55.

Executive Summary

This section first presents key cumulative findings of the survey that measured technology use and digitization activities by museums and libraries. It then presents a series of tables and graphs that compare survey responses by museums and libraries based on a variety of categorizations. The most significant of these categorizations is the one on which most sections of this report are based: museum, public library, academic library, and State Library Administrative Agency (SLAA). Further categorizations are by such measures as budget size, size of populations served, and current extent of technology use and digitization.

Key Cumulative Findings

The survey results quantify, for the first time, the current status of technology use and digitization activities by museums and libraries. The reliability of findings varies somewhat based on the rate at which institutions in various categories responded to the survey (see "Background on Study and Methodology" for a detailed discussion of reliability of responses). Nonetheless, some broad and significant cumulative findings are clear.

Technology Use

Libraries' technology use is pervasive, particularly the basic technologies that automate and support services to the public.

The different kinds of libraries in the survey have sources of funds that have enabled them to invest in technologies.

- Public libraries have benefited from E-Rate discounts, grants from the Bill & Melinda Gates Foundation, and IMLS' Grants to States program, which is Library Services and Technology Act (LSTA) funds administered by the State Library Administrative Agencies. [2]
- Academic libraries use operating funds, gifts from donors and IMLS funds to support their technology needs.
- State Library Administrative Agencies (SLAAs) use LSTA and operating funds to implement technology.

Museums' technology use is strong in the medium-sized and large museums, but lags significantly in the smaller museums.

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[2] Charles R. McClure, Joe Ryan, and John Carlo Bertot, *Public Library Internet Services and the Digital Divide: The Role and Impacts from Selected External Funding Sources* [online PDF] (Lexington, KY: Chief Officers of State Library Agencies, January 2002 [cited April 2002]); available at http://slis-two.lis.fsu.edu/~jcbertot/DDFinal03_01_02.pdf.

- Eighty-seven percent of museums are using some technology to automate operations and support programming.
- Roughly 13 percent of museums currently use no technologies, and 42 percent of those have no immediate plans for adding technologies.
- Sixty-seven percent of the survey's museum respondents have budgets of $250,000 or less. Among this group, only 55 percent have access to the Internet, e-mail, and standard office software. Only 41 percent have a Web site.

There are fewer sources of funds available for museum investment in technology.

- The funding programs that have benefited libraries have not been available to museums.
- Key sources of funding include operating funds, gifts from donors, and in-kind contributions. Twenty percent of all museums reported having 'no funding for technology.'

Museums and public libraries alike demonstrate a marked gap between small and large institutions.

Small museums are less likely to be using technologies than medium-sized and large museums. The distinction is pronounced: While 87 percent of all museums have some technology, the percentage of small museums with technology is significantly lower. Thirteen percent of small museums use *no* technology. Small public libraries fared better than their museum counterparts. For example, 85 percent have e-mail and Internet access. Yet they lag in use of online catalogs, desktop computers and Web sites.

Digitization Activities

Digitization activities are an emerging focus in museums and libraries, with substantial work being done by State Library Administrative Agencies (SLAAs).

- More than 78 percent of all SLAAs reported digitization activities in the past year. Compare this with 32 percent of museums, 34 percent of academic libraries, and 25 percent of public libraries. Larger museums, academic libraries, and public libraries are more active than the smaller ones.

- SLAAs lead in all areas of digitization, including funding (primarily through the receipt of LSTA funds from IMLS and other funds from their states), collaboration among institutions, and digitization policies.

- All groups have plans to digitize in the next 12 months and beyond, indicating a significant expansion of digitization activities.

- Collaboration in digitization activities and the adoption of policies and standard practices for digitization in museums, academic libraries, and public libraries lag significantly behind the SLAAs. These are important areas for development.

Key Technology Use Findings

A substantial majority of all respondents use new technologies. Those used most commonly are listed below. Those used most commonly are listed in **Figure 1**.

- Figure 1: Strengths in Technology Use

Type of Institution	Most Commonly Used Technology
Museums 87% indicated they currently use some kinds of technology	– *Desktop computers* – *Access to Internet* – *E-mail use* – *Standard office software.*
	Note: In general, the larger the museum's annual budget, the more likely the museum is to use the listed technology.
Public Libraries 99% indicated that they currently use some kinds of technology	– *Desktop computers* – *Access to the Internet* – *E-mail use* – *Computerized catalog of library collection*
	Note: In general, the larger the population served, the more technology is used by a public library.
Academic Libraries 100% indicated they currently use some kinds of technology	– *Desktop computers* – *Access to the Internet* – *E-mail use* – *Computerized catalog of library collection.* – *Web site*
SLAAs 100% indicated they currently use some kinds of technology	– *Computerized catalog of library collection.* – *Web site* – *Standard office software* – *Notebook (laptop) computers*

Exemplary Project: Colorado Digitization Project

Museums, libraries, archives, and historical societies in Colorado have discovered that collaboration is a powerful approach for putting collections online. IMLS funded the Colorado Digitization Project (CPD), a multifaceted effort to make the rich primary source holdings of Colorado's cultural heritage organizations available online. Through grants to cultural heritage organizations and a combination of training, collaborative

outreach, research, and technical support, the CDP created an extensive infrastructure to support the creation of digital collections. The project Web site, *Heritage*, provides a gateway to the collections, as well as a digital "toolbox" for digital project administrators, and resources for teachers.
http://coloradodigital.coalliance.org/

Almost all libraries and SLAAs have sources of funding technology; one source for many of them, particularly SLAAs, is IMLS. A large, but markedly lower, segment of museums has technology funding. Only 2 percent of museums use IMLS funding for technology. **(see Figures 2a and 2b)**

- Figure 2a:

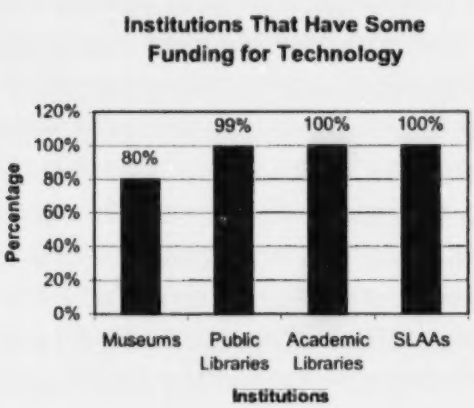
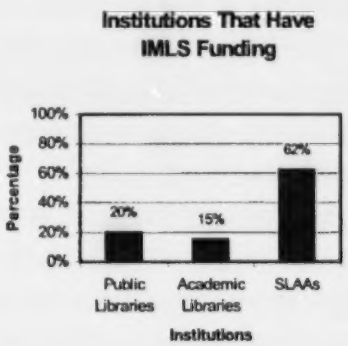


Figure 2b:



Web sites and technology that supports programming are employed by most surveyed institutions, although their presence is far from pervasive. **(see Figures 3-5)**

- Figure 3:

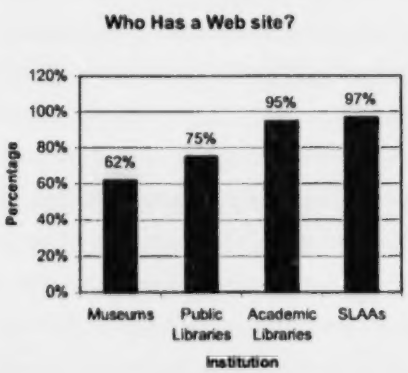


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Figure 4: Current Use of Technology to Support Programming

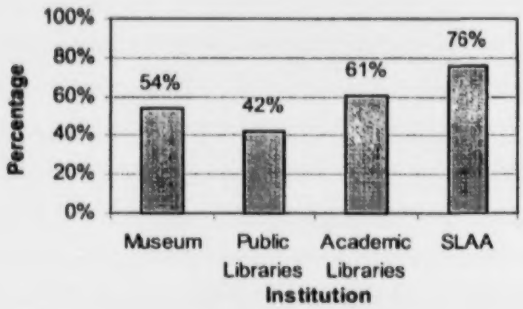


Figure 5: Types of Programming Activities Supported by Technology

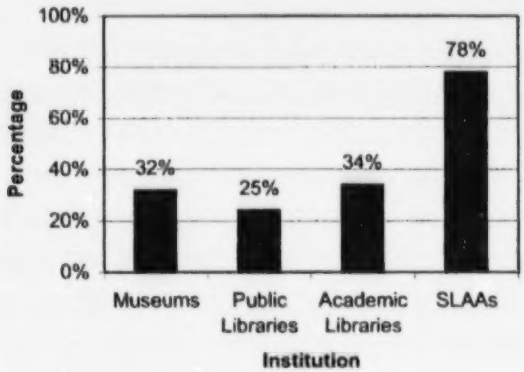
Type of Institution	Information on exhibits is presented to the public via the Web	Educational programs presented via onsite computer	Educational programs presented to the public via the Web	Disseminate research findings and publications via the Web	Provide programs and exhibits on Web Site
Museums	X		X		X
Public Libraries	X	X			X
Academic Libraries	X	X	X		
SLAAs	X		X	X	

Exemplary Project: Digital Collections—Museums and Libraries Find Common Ground
Museums and Libraries in every corner of the country have been affected by the World Wide Web. What issues face these institutions as they consider the best ways to use the Web to expand access to their collections? This was the subject of a unique gathering of 30 library, archive, and museum policymakers sponsored by the Council on Library and Information Resources and the Chicago Historical Society. Supported by an IMLS LSTA-funded National Leadership Grant, the meeting proved that museums and libraries share acres of common ground in the new digital world.
http://www.imls.gov/closer/archive/hlt_c0900.htm

Key Digitization Activities Findings

Digitization activities are significantly less pervasive among institutions than use of technology. Only SLAAs are above 50 percent in digitization activities. **(see Figure 6)**

- Figure 6: Which Institutions Have Digitization Activities?



- What is being digitized?
- Historical documents/archives and photographs were frequently selected for digitization by all types of institutions.**(see Figure 7)**

Figure 7: Materials Currently Being Digitized

Type of Institution	Government publications	Historical documents /archives	Images of artifacts	Images of items in the collection	Maps	Newspapers	Manuscripts	Photographs	Course materials
Museums		x	x	x				X	
Public libraries		x			x	x		X	
Academic libraries		x		X				X	x
SLAAs	x	x					x	X	

- What do institutions hope to accomplish with their digitization projects?

There is considerable convergence of chief goals among the different groups. Museums and libraries look at "collections" differently, but, in general, all of the groups have similar goals. **(see Figure 8)**

Figure 8: Rankings of Primary Goals of Digitization

Goals	Museums	Public Libraries	Academic Libraries	SLAAs
Increase access to the collections and collections' records	1	4	3	3
Preserve materials of importance or value	2	1	2	2
Provide greater information about the institution's collections to artists, scholars, students, teachers, and the public	3	-	-	-
Reduce damage to original materials	4	5	5	5
Increase interest in the museum	5	-	-	-
Increase access to books, journals, documents, and other materials	-	2	1	1
Provide access to digital collection on a Web site	-	3	4	4

- What funding sources are used for digitization projects?

Principal sources of funding for digitization also varied widely by type of institution. **(see Figure 9)**

Figure 9: Top Funding Sources by Institution

Funding Source	Museums	Public Libraries	Academic Libraries	SLAAs
Operating funds	24%	14%	25%	16%
IMLS grants	**	8%	13%	60%
Foundation grants	11%	7%	**	**
Gifts from donors	14%	8%	**	**
State funds	**	**	14%	46%

***Institutions indicated do use this funding source. Only top three to four percentages of funding sources shown for each type of institution.*

Exemplary Project: Web Delivers Digital Picture of Native American History
The Native American collections of Montana are rich with images of the Cheyenne, the Gros Ventres, and twelve other Plains Indians cultures. An IMLS LSTA-funded National Leadership Grant allowed Montana State University Libraries at Bozeman and the Museum of the Rockies to create a searchable database of 1,500 images from five collections across the state. http://www.imls.gov/closer/archive/hlt_c0500.htm

- What are the hindrances to digitization?

Among institutions with current or planned digitizing activities, hindrances to more extensive digitization are the same regardless of institution type. Those with no current or planned digitizing report more hindrances that vary somewhat by institution type. **(see Figure 10)**

Figure 10: Most Common Hindrances by Institution Type

Type of Institution	Lack of funds to support digitization	Other projects have higher priorities	Lack of available expertise	Concern about costs of preservation and management	Do not see a role for our institution in digitization	Do not see the usefulness of digitization for our institution
For institutions with current or future digitizing plans						
Museums	x	x	x	x		
Academic Libraries	x	x	x	x		
Public Libraries	x	x	x	x		
SLAAs	x	x	x	x		
For institutions with no digitizing plans						
Museums	x	x	x		x	
Public Libraries	x	x	x	x		
Academic Libraries	x	x			x	x
SLAAs	x	x	x		x	

- Who has digitization policies?

Less than half of responding museums, public libraries, and academic libraries have digitization policies in place or in development. Only among SLAAs—where more than half of respondents are doing digitization—are policies in place or in development. **(see Figure 11)**

Figure 11: Digitization Activities and Policies by Institution Type

	Doing digitization	Policies in place	Policies in development
Museums	32%	12%	20%
Public libraries	24%	3%	17%
Academic libraries	34%	8%	15%

SLAAs	78%	25%	42%

Exemplary Project: Hardscrabble Mountaineers, Spanish Settlers, Native Americans—The Cultures of Taos Valley Unearthed
New Mexico's Taos Valley is steeped in the cultures of Native Americans, Spanish settlers, mountain pioneers, and artists' colonies. The unique southwest collections in local museum archives were once the sole purview of curators. Now, thanks to an IMLS grant and the online catalog of the University of New Mexico, three Taos Valley museums' archives are available to everyone, including 14 year-old Joe Kierst, who is 100 pages into his historical novel about Peg-leg Smith, Cerain St. Vrain, William Becknal, and other hardscrabble mountaineers.
http://www.imls.gov/closer/archive/hlt_m0701.htm

Key IMLS Roles Findings

Funding to support technology implementation and digitization activities was the outstanding role identified for IMLS by both museums and libraries. Other ways of assisting with funding needs were also desired: identifying other sources of funding; identifying costs and resources needed; and identifying cost-effective technologies.

Another IMLS role that was strongly supported is the identification of best practices, model projects, and information about standards, guidelines, and resources. This finding is based on combined responses about roles for both technology support and digitization activities.

A substantial number of museums and libraries said that they did not know what IMLS' role should be. Some indicated that IMLS does not have a role.

Action Recommendations Based on the Survey Results

Action Recommendations for Potential Research

1. *Repeat the technology and digitization survey in 2004.*

IMLS plans to repeat the *Status of Technology and Digitization in the Nation's Museums and Libraries* survey in 2004, in order to measure the changes and developments that occur. In developing the next survey, attention should be paid to these issues:

- The museum universe used for the next survey should support sampling by museum type. This will permit more in-depth data gathering.
- The next survey should look at the hindrances libraries and museums face in implementing technologies. More specific questions could clarify the use of technologies for internal work and those used to provide service to the public. It would also be helpful to ask about the usefulness of technologies that support services to the public.
- The survey asked about hindrances to digitization, but it did not ask for more specific information from libraries and museums that indicated no role or usefulness of digitization in their institutions. The next survey should try to identify possible reasons, such as 'We have no collections that are worth digitizing.' This would help clarify the breadth of potential digitization activities and what might be needed to overcome hindrances.
- The next survey should gather information about the technologies that emerge in the intervening years. 'Other' technologies respondents listed in this survey included e-books, image databases, and wireless networks.

2. *Investigate programming activities in museums and libraries, with special attention to how technology is used in them.*

Programming activities, their purposes, and the ways they are handled—including the use of technology—differ among museums and the various kinds of libraries. Programs represent an important form of service to the public. It would be useful to investigate what kinds of programming activities museums and libraries are doing, with particular emphasis on how technology is involved. Best practices and exemplary programs should be identified and highlighted.

3. *Study how museums and libraries can collaborate on the systematic digitization of America's collections of materials and objects.*

With the solid base of digitization activities now taking place across the U.S., it is perhaps time to consider how museums and libraries can collaborate on the systematic digitization of America's collections of materials and objects. IMLS should undertake a study that:

- works with states, regional groups and institutions, and other federal agencies to inventory how they identify and make decisions about which resources are appropriate for digitization;
- explores how organizations identify current and potential audiences and their needs for digital resources;
- considers how organizations can develop appropriate business models to support digitization initiatives.

Exemplary Project: Delving into the Wilds of Florida
Both libraries and museums have collections critical for the study of the natural world. An IMLS LSTA-funded National Leadership Grant at work in Florida is supporting a new Web site that, for the first time, allows simultaneous searching across diverse museum and library databases of Florida Ecology.
http://www.imls.gov/closer/archive/hlt_c0600.htm

Action Recommendations for Museums, Libraries, and SLAAs

1. *Learn about the importance of having policies to ensure the long-term availability and usefulness of digital content.*

Libraries and museums that are engaged in or considering digitization projects should understand the importance of having policies to ensure the long-term availability and usefulness of the digital content that is created. Of particular importance are policies on metadata, standards for imaging, preservation of digital images, selection of materials to be digitized, and access policies.

IMLS' draft *Framework of Guidance for Building Good Digital Collections* (http://www.imls.gov/pubs/forumframework.htm) can provide helpful information to museums and libraries as they develop their digitization projects.

2. *Explore the usefulness of registering digital products in centralized digital registries.* [3]

One of the challenges created by digitization is the difficulty of knowing what digital resources exist and where they are located. To address this problem for projects supported

[3] Two national registries are:
- Association of Research Libraries' (ARL): Digital Initiatives Database: http://www.arl.org/did/
- OCLC's Cooperative Online Resource Catalog (CORC): http://www.oclc.org/corc

through its LSTA-funded National Leadership Grants program, IMLS is considering a grant award in 2002 to pilot the use of a new tool known as the Open Archives Initiative metadata harvesting protocol. If successful, the pilot would provide access to the more than 100 digital collections created with the IMLS LSTA-funded National Leadership Grant program since 1998. It would also help IMLS identify emerging best practices for the creation, management, and interoperability of digital resources.

3. *Explore opportunities to coordinate digitization initiatives statewide and regionally.*

The State Library Administrative Agencies (SLAAs) are in a particularly advantageous position to coordinate digitization initiatives within their states and regionally. They may want to consider the opportunities in their area to promote and coordinate collaboration among libraries and museums. Exemplars of SLAA coordination are:

- *Washington State Digital Library Resources: http://digitalwa.statelib.wa.gov/*
- *Library of Virginia Digital Library program: http://www.lva.lib.va.us/dlp/index.htm*
- *Colorado Digitization Project: coloradodigital.coalliance.org*

Action Recommendations for IMLS

1. *Make libraries and museums aware of the funding that is currently available through IMLS' grant programs. Emphasize how the programs can support technology implementation and digitization activities.*

A number of IMLS programs can be used to fund technology use and digitization activities:

- National Leadership Grants for Museums: http://www.imls.gov/grants/museum/mus_nlgm.asp
- National Leadership Grants for Libraries: http://www.imls.gov/grants/library/lib_nlgl.asp
- National Leadership Grants for Libraries and Museums: http://www.imls.gov/grants/l-m/index.htm
- Museum Services programs, including Learning Opportunities Grants that will become available in FY 2003: http://www.imls.gov/grants/museum/index.htm
- Grants to States: http://www.imls.gov/grants/library/lib_gsla.asp
- Native American Library Services: http://www.imls.gov/grants/library/lib_nat.asp
- Native Hawaiian Library Services: http://www.imls.gov/grants/library/lib_nhls.asp

2. *Identify strategies to increase funding for technology in museums.*

While libraries have benefited from several funding initiatives that support the use of technology, support for technology in museums is limited. IMLS is addressing the need for more dedicated funding for technology in museums through two core funding programs. Learning Opportunity Grants, available in 2003, include a priority of building technology capacity in museums of all types and sizes. Museums Online, a National Leadership Grant, funds technology innovations in providing museum services.

Additional strategies should be identified to increase funding for technology use in museums.

3. *Identify strategies to increase funding for technology in small public libraries.*

Public libraries are eligible for IMLS' LSTA-funded Grants to States program, E-Rate discounts, and equipment and training from the Bill and Melinda Gates Foundation. There is still a substantial gap between small public libraries and the medium and large ones in terms of technologies currently implemented. IMLS will continue to promote its LSTA-funded Grants to States program as a way to address the need to implement technology in libraries.

4. *Educate and promote awareness among libraries and museums about the role of digital cultural heritage resources in education, research, and learning.*

IMLS will emphasize the potential museums and libraries can realize to deliver their educational resources in digital formats. As the Connecticut History Online project (http://www.lib.uconn.edu/cho/) and other IMLS-funded projects have demonstrated, digitized collections of cultural heritage materials offer rich and varied resources to students of all ages.

- IMLS' monthly e-newsletter *Primary Source* will continue to highlight excellent digitization projects. (http://www.imls.gov/whatsnew/current/pscurrent.htm)
- IMLS' annual Web-Wise Conference focuses on successful digitization projects. (www.imls.gov/pubs/conferences.htm)
- IMLS staff will make presentations about digitization initiatives, models and best practices at meetings within the museum and library communities.

5. *Educate museum and library staff about the need to adopt standards, policies, and practices to enhance the usefulness and persistence of digital resources.*

IMLS will provide leadership to the field by advocating the use of standards and best practices in digitization initiatives.

IMLS:

- requires applicants for LSTA-funded National Leadership Grant digitization projects to identify the policies and standards they are using.
- initiated the Framework of Guidance for Building Good Digital Collections (http://www.imls.gov/pubs/forumframework.htm). IMLS will periodically review the document and make it widely available to museums and libraries.

In addition, IMLS will:

- explore ways to provide enhanced access to the digital resources created with IMLS funding;
- fund research on problems such as preservation of digital resources and the interoperability of library, archival, and museum information;
- support identification and promotion of best practices, standards, and model projects;
- support analyses, tools and services, such as user needs studies, model business plans, and rights management services, to enhance the accessibility of digital resources.

6. *IMLS will encourage collaboration among museums and libraries to develop digitized virtual collections of cultural heritage collections.*

The Colorado Digitization Project (http://coloradodigital.coalliance.org/) and other IMLS-funded collaborative projects demonstrate how unique, dispersed primary source collections can be digitized and linked to create online databases accessible to anyone using the World Wide Web. IMLS will encourage partnerships and collaborative efforts through its grant programs.

Background on Study and Methodology

Background for Conducting the Study

In 1996, the Institute of Museum and Library Services was created when Congress passed the Museum and Library Services Act, drawing together federal support for these centers of learning and community engagement. IMLS administers museum programs under the Museum Services Act and library programs authorized by the Library Services and Technology Act (LSTA). IMLS administers a variety of grant programs under each law. For instance, LSTA funds both the IMLS Grants to States program (which is administered by SLAAs) and the competitive National Leadership Grants for Libraries program, among others.

Since aspects of both funding programs impact the applications of technology in libraries and museums, IMLS undertook this study of their technology use and digitization activities, and the perceived role of IMLS in both of these areas. This report of the study offers insights into the uses, challenges, and technology capacity of both types of institutions.

IMLS' Office of Research and Technology was responsible for this study. The role of this office is to help identify the needs of the museum and library communities and the effectiveness of IMLS' programs in addressing the needs.

The contractor for the survey was the Center for Organizational Excellence, located in Rockville, Maryland.

Purpose of the Survey

The purpose of the survey was to collect information on the use of technologies, digitization activities, and related plans and policies of libraries, museums, and State Library Administrative Agencies across the country.

The survey consisted of four sections:

- Background on the respondent: demographic information on museums and libraries, including type, size, and location.
- Status of technology: current and planned use of technology, funding sources, use of technology in programming.
- Digitization plans, practices, and policies: current and planned digitization activities, funding sources, hindrances, digitization goals and materials being digitized, policies in use, and collaboration activities.
- IMLS role: how IMLS should support implementation of technologies and digitization in individual institutions and within the museum and library communities.

IMLS will use the findings of this survey to determine its appropriate role in supporting technology and digitization activities, in museums and libraries, particularly to support services to the public. The information provided by the survey results will help IMLS shape the focus and thrust of the agency's grant programs and related activities. The research will help IMLS to be better positioned to meet the future needs of libraries and museums.

The final published information can be used by museums, libraries, and State Library Administrative Agencies to understand where they are in the continuum of technology implementation, and to plan for further technology developments. The report can help individual institutions with fundraising and advocacy activities.

Involving the Museum and Library Communities

IMLS involved stakeholders from the museum and library communities at key points in the survey process.

- Prior to conducting the survey, IMLS convened a group of museum, public library, academic library, and State Library Administrative Agency representatives to discuss content and approaches.
- A number of individuals representing each of the survey groups participated in the pilot test of the survey, including taking the preliminary survey online, then participating in a focus group. Their comments and suggestions were very helpful in the final survey design.
- As the survey report was being prepared, individuals from each of the groups in the survey read and provided helpful comments and feedback.

IMLS appreciates the assistance received from the many individuals who helped with the survey.

Methodology for identifying the sample

The potential respondent universe was composed of four groups: public libraries, academic libraries, State Library Administrative Agencies, and museums.

All 51 State Library Administrative Agencies received surveys.

Random samples for museums, public libraries, and academic libraries were identified. The available museum and library populations for the survey were identified by using:

- a database of museums supplied by the National Conference for State Museum Associations (NCSMA)
- the American Library Directory on Disc by Bowker.
- Museums: The database of the museum universe did not have sufficient information to stratify by museum discipline, so a simple random sample across all museums in the database was selected. **(see Figure 12)**

Figure 12: Museum Universe and Sample Size

Museums	Universe	Sample Size
	15,437	1,500

Note: The planned sample size for museums was 1,500. However, when substantial numbers of surveys were undeliverable, a re-sampling was done, resulting in a total of 1,558 surveys sent to museums.

- Public libraries were stratified in terms of the size of the population served by the library. Because there was particular interest in comparing across groups, an equal number of institutions from each category was sampled. For population categories that contained less than 150, the total population was used for the sample. **(see Figure 13)**

Figure 13: Public Library Universe and Sample Size

Population Served	Universe	Sample Size
Under 5,000	2,871	150
5,000 – 9,999	1,348	150
10,000 – 24,999	1,675	150
25,000 – 49,999	762	150
50,000 – 99,999	526	150
100,000 – 249,999	254	150
250,000 – 499,999	56	56
500,000 – 999,999	43	43
Over 1,000,000	20	20
Total	**7,555**	**1,019**

- Academic libraries were stratified by the type of academic setting the library serves. The database did not allow for stratifying the academic library groups by public and private institution, so the stratification was done with 2-year colleges versus 4-year colleges and universities. **(see Figure 14)**

Figure 14: Academic Library Universe and Sample Size

Type of academic library	Universe	Sample size
2-year colleges	1,222	150
4-year colleges and universities	2,460	150
Total	3,682	300

Conducting the Survey

The data collection was conducted during May and June 2001. To elicit a greater response rate, the deadline was extended by two weeks and a follow-up letter or e-mail was sent to all institutions in the samples.

Response Rate and Validity of the Data

A total of 2,836 surveys were sent: 1,558 to museums, 1,227 to public and academic libraries, and 51 to State Library Administrative Agencies.[4] A total of 701 survey responses were received. There were six surveys that were not identified as a library or museum, so they were not used in the analysis. The overall response rate to the survey was 25 percent. **(See Figure 15)**

Figure 15: Survey Response Rates

Group	Surveys sent	Survey responses	Response rate
Museums	1,558	341	22%
Public libraries	1,019	237	23%
Academic libraries	300	80	27%
SLAAs	51	37	73%

The findings of the survey are statistically representative at the following levels:

- Public Libraries at the 90 percent (+/–10 percent) level
- Academic Libraries at the 90 percent (+/–10 percent) level
- Museums at the 90 percent (+/–5 percent) level
- State Library Administrative Agencies (SLAAs) at the 95 percent (+/–5 percent) level

At these confidence levels, the findings for State Library Administrative Agencies are definitive. The specific results for museums, public libraries, and academic libraries can be discussed in terms of trends for each. Trend results are also discussed when breaking the data by demographic information, such as size of population served (public libraries) and size of budget (museums).

Definitions

The following definitions are provided for key terms used in the survey:

Technology refers to computer-based equipment, software applications, and telecommunication network capabilities that are used in libraries and museums.

[4] There were 92 fewer surveys sent than the total identified in the initial sample for libraries. These 92 were a combination of libraries that were located in Canada or Mexico, as well as those for which contact information was not available. Survey expertise indicated that since the number was under 100, the survey results would not be impacted by not replacing those institutions.

Digitization is defined as the process of converting, creating, and maintaining books, art works, historical documents, photos, journals, etc. in electronic representations so they can be viewed via computer and other devices. (By digitizing portions of their collections, museums and libraries can provide the public with access to materials that otherwise might not be seen, such as historical documents and collections of objects that are not generally on display.)

Programming refers to activities and services that are designed to instruct, inform, and engage people in museums and libraries. Programming takes many forms, both physical and virtual. The term has different connotations in the museum and library communities.

Survey Results for Museums

Summary of the Survey Findings

Technology use: Eighty-seven percent of museums that responded indicated they currently use some kinds of technologies. The technologies most in use include desktop computers, access to the Internet, e-mail, standard office software, and Web sites. Among small museums (with budgets less than $250,000), the percentage that have these technologies are significantly lower than for all museums. Thirteen percent of museums, all of them small, reported that they have none of the technologies. While many museums reported using a variety of funding sources, almost 20 percent of them reported having 'no funding for technology.'

Digitization: A significant percentage of museums are involved in digitization activities. More than 30 percent of museums had digitization activities in the past 12 months, including 21 percent of small museums. A smaller number (18 percent) indicated that they plan digitization activities in the next 12 months.

Funding is the most-cited hindrance to digitization activities, though other institutional priorities and lack of staff expertise were also noted.

Museums that are not involved in digitization activities also cite the lack of funds and expertise as hindrances. Some, however, did not see a role for or usefulness of digitization in their institutions.

Only a small number of museums have digitization policies in place, though a number are in the process of developing them. Very few register their digital content in national registries like ARL or OCLC CORC.

Key Respondent Demographics

At the time the surveys were sent, there were 15,437 museums eligible for surveying. Surveys were sent to 1,558 museums, and 341 responses were received. The response rate was 22 percent.

The confidence level for the museum data is 90% (+/- 5 percent), which means the data are a reliable indicator of trends.

History museums, historic houses/sites, and art museums were the most numerous respondents. **(see Figure 16)**

Figure 16: Percent of Survey Respondents Compared to Museum Universe by Museum Type

Type of museum	% of survey respondents	% of universe
History	31%	29%
Historic house / site	23%	26%
Art	16%	15%

- Eighteen percent of the respondents identified themselves as specialized distinct subject museums. The responses for other kinds of museums included general museum (4 percent), natural history/anthropology museum (3 percent), children's museum (2 percent). All other types (aquarium, arboretum or botanical garden, nature center, science or technology center, and zoological park) each represented less than 1 percent of the total of respondents.

- Annual budget size of responding museums breaks out as in **Figure 17**. Size descriptions were assigned to the various budget categories.

Figure 17: Annual Budget Size of Responding Museums

Size of annual budget	% of museum respondents	Size description
Less than $250,000	67%	Small
$250,001 to $500,000	9%	
$500,001 to $1,000,000	10%	Medium
$1,000,001 to $10,000,000	14%	
$10,000,001 and greater	0%	Large

- More than two-thirds of the respondents with the following museum types have annual budgets of less than $250,000: general museum; historic house/site; history museum; natural history/anthropology museum; nature center; and specialized distinct subject museum. All responding zoos and aquariums have annual budgets greater than $2,000,000. Budgets for the remaining types of museums (arboretum or botanical garden, art museum, children's museum) ranged across all size descriptors.

Exemplary Project: Minneapolis Institute of Arts
The Minneapolis Institute of Arts is a leader in providing information online. In its IMLS-funded project "What Clicks?" the museum will conduct an intensive audience research and product evaluation study. The results will help museums learn how to improve their digital products, including exhibitions, lesson plans, and image databases, to increase their accessibility to and use by the public. http://www.artsmia.org/

The Status of Technology – Museums

"What technologies (hardware and software) does your institution currently use for its day-to-day operations?" What technologies does it plan to acquire or implement in the next 12 months?

Figure 18 lists technologies used by museums in descending order:

Figure 18: Technologies Currently in Use in Museums

Technologies currently in use	% of survey respondents
Desktop computers	74%
Access to the Internet	71%
E-mail	71%
Standard office software, e.g., word processing	70%
Web site	62%
Database software for collections management	54%
Desktop publishing software	54%
Accounting/payroll software	50%
Database software for membership development	47%
Graphics software	44%
Network server	33%
Computerized catalog of your library collection (if any)	29%
Notebook (laptop) computers	27%
Intranet	15%
None of the above	**13%**
Point of Sale software	11%
PDAs, i.e., PalmPilot	9%
Video tours	7%
Extranet	4%
Virtual reality tours	4%
Marketing and promotion software	2%

- Five "basic" technologies reported by museums are shown in **Figure 19**. Small museums report significantly lower usage.

Figure 19: Basic Technologies Reported by Museums

Technologies currently in use	% of all museums using listed technologies	% of small museums using listed technologies	% of medium-sized museums using listed technologies	% of large museums using listed technologies
Desktop computers	74%	60%	96%	97%
Access to the Internet	71%	55%	94%	100%

E-mail	71%	55%	94%	100%
Standard office software	70%	55%	96%	97%
Web site	62%	41%	93%	100%

- Thirteen percent of respondents, all of them museums with annual budgets less than $250,000, indicated that they have none of the technologies. Forty-two percent of this group of small museums reported that they have no plans to implement any of the listed technologies in the next 12 months.

- Fifteen percent of all museums (19 percent of the small ones) plan to add a Web site in the next 12 months.

- Very few museums (less than 4 percent) are using more specialized technologies, like 'Extranets,' 'Marketing and promotion software,' or 'Virtual reality tours.'

- In general, the larger the museum's annual budget, the more likely the museum is to use the listed technologies.

What are the current sources of funds for this technology? (Check all that apply.)

- Operating funds (57 percent)

- Gifts from donors (43 percent)

- In-kind contributions (23 percent)

- IMLS grants were identified as a source of funding by 2 percent of museums.

- Almost 20 percent of all museums report that they have no funding for technology.

What technology does your institution currently use for programming? (Check all that apply.) What does it plan to use for programming in the next 12 months that it does not currently use?

- More than 54 percent of museums indicate that technology is currently used to support programming. More than 53 percent indicate they plan to use additional technologies to support programming in the next 12 months.

- Small museums are more likely (more than 60 percent) to respond 'Not applicable' to both current and planned technology questions than are larger museums.

- For those museums that use technology for programming, the most common kind is 'Information on exhibits is presented to the public via the Web' (37 percent). This is consistent across all museums, regardless of budget size.

- 'We provide programs and exhibits on our Web site' is the programming technology most often planned for the next 12 months (26 percent of all museums).

Technology is useful for your institution's programming because...?

- Results of the question vary by size of annual budget. **(see Figure 20)**

Figure 20: Technology is Useful to Your Museum Programming Because:

Benefit	All museums	Small museums (annual budget less than $250,000)
Provides a richer educational experience	56%	43%
Increases the number of people	51%	43%
Makes programs more interactive	48%	38%
Not applicable	35%	44%

What hinders the use of technology in your institution's programming?

- 'Cost' was identified as the primary hindrance to the use of technology in programming (79 percent of all museums), closely followed by lack of expertise (63 percent). Lack of resources in general (money, people, time, etc.) was a common write-in response.

Digitization Plans, Practices, and Policies - Museums

In the past 12 months, have you been or are you currently involved in digitization, for example, current projects, funding, setting standards, implementing, etc.? **(see Figure 21)**

Figure 21: Digitization Activities in Small and Large Museums

	All museums	Smaller museums (annual budget less than $250,000)	Larger museums (annual budget greater than $1,000,000)
Digitization activities in the past 12 months?	Yes – 32% No – 68%	Yes – 21% (32) No – 80% (124)	Yes – 64% (21) No – 36% (12)
Digitization activities planned for the next 12 months?	Yes - 17% No - 83%	Yes - 18% (23) No - 82% (103)	Yes - 42% (8) No – 58% (11)

What hinders your efforts at digitization?

Respondents were asked to rank their three most important responses from a list. The most important hindrances among museums that are currently digitizing or have plans for the future are ranked in **Figure 22**.

Figure 22: Ranking of Digitization Hindrances for Museums

Digitization hindrances	Currently digitizing	Next 12 months	Beyond 12 months
Lack of funds to support digitization	1	1	1
Other projects have higher priorities	2 (tie)	2	2
Lack of available expertise	2 (tie)	3	3
Concern about costs of preservation and management	4	4	4
'Other' with written comments emphasizing lack of staff and staff time	5	5	5

Museums without digitization activities or plans frequently cited these hindrances:

- Lack of funds to support digitization
- Other projects have higher priorities
- Lack of available expertise
- Do not see a role for our institution in digitization
-

What are the primary goals for your institution's digitizing activities?

Respondents ranked their three highest priority goals, as shown in **Figure 23**. 'Not applicable' was highly ranked, a reflection of the large percentage of museums (68 percent) that are not involved in digitization activities.

Figure 23: Highest Priority Digitization Goals for Museums

Highest priority digitization goals	Rank among all respondents	Rank among small museums	Rank among medium-sized museums	Rank among large museums
Increase access to the collections and collections records	1	3	1	1
Preserve materials of importance or value	2	2	2	4
Not applicable	3	1	8	9
Provide greater information about the institution's collections to artists, scholars, students, teachers, and the public	4	5	3	2
Reduce damage to original materials	5	4	3	8
Increase interest in the institution	6	6	5	5

Exemplary Project: Bronx Zoo
The Wildlife Conservation Society and the Bronx Zoo are developing two multimedia

components to the Tiger Mountain exhibit of Siberian Tigers with the aid of an IMLS LSTA-funded National Leadership Grant. Available at interactive touch screen terminals within the zoo, the digital exhibits will provide visitors with both a behind-the-scenes look at modern zoo animal care as well as a snapshot of the state of tigers in the world. Visitors have the options of observing animal behavioral enrichment activities, watching digital video, reading journal entries, or viewing photos from researchers in the field. http://wcs.org/home/zoos/bronxzoo/

What materials has your institution selected for digitization?

Museums' current and future digitizing activities will focus on:

- Images of items in the collection (34 percent)
- Photographs (30 percent)
- Images of artifacts (24 percent)
- Historical documents/archives (21 percent)

Where do you currently obtain funds to support your digitizing efforts? (Check all that apply.)

Museums with funding for digitization activities or projects (13 percent) reported these sources:

- Operating funds (24 percent)
- Gifts from donors (14 percent)
- Foundation grants (11 percent)
- Sixty-four percent of responding museums indicated they have no funding for digitization.

Does your institution cooperate with other organizations to develop digitization programs, i.e. partnerships, consortia, etc.?

- Nineteen percent of museums currently digitizing are cooperating with other institutions' digitization projects. They report cooperating with a wide variety of institutions, including other museums and state agencies.

Does your institution have digitization policies in place? In development? **(see Figure 24)**

Figure 24: Digitization Policies in Museums

	All museums	Smaller museums (annual budget less than $250,000)	Larger museums (annual budget greater than $1,000,000)
Digitization policies currently in place?	Yes – 12% No – 88%	Yes – 6% (9) No – 94% (138)	Yes – 29% (9) No – 71% (22)
Digitization policies in development?	Yes – 20% No – 80%	Yes – 14% (21) No – 86% (132)	Yes – 39% (14) No – 61% (19)

- Policies "in place" include: 'Digital formats,' 'Priorities for digitization,' 'Materials to be digitized,' and 'Access.'
- Policies "in development" are identical to the "in place" list, with the addition of 'Intellectual property issues.'

Does your institution allow access to its digital collection by the public?

- Forty-seven percent of museums that have some portion of their collection digitized allow public access to their digital collections. Those that do allow access primarily use the Web (76 percent), followed by their own computer network (52 percent). Very few (less than 7 percent) use a third party.
- Primary target audiences of digital materials, in order of priority, are: 'Anyone with Internet access' (61 percent), 'Researchers/scholars' (46 percent), and 'Staff members' (35 percent).
- Seventy-two percent of these museums that have some portion of their collection digitized give free access (no charge) to 'Anyone with Internet access.'

Are your digital products listed with any digital registry?

- Two percent of responding museums report that their digital products are listed with a registry outside of their own catalogs. Based on the names of registries that they provided (American Zoo and Aquarium Association, International Species Information System, EAD, American Memory (LoC), and the Museum Loan Network), it appears that there is not a standard definition or understanding of what a "registry" is.
- Nine percent of responding museums have digital products listed in their institutions' catalogs. Catalog tools include Access®, animal/medical records, Embark Collections Management®, Filemaker Pro®, the gallery Web site, and Past Perfect®.

Survey Results for Public Libraries

Summary of the Survey Findings

Technology use: Ninety-nine percent of public libraries that responded indicated that they currently use some kinds of technologies. The technologies most widely used are: access to the Internet, e-mail, computerized catalogs of library collections, desktop computers, standard office software, and Web sites. Among the small libraries (those serving populations under 10,000), e-mail and Internet access are strong (more than 85 percent), but they lag in online catalogs, desktop computers, standard office software, and Web sites. Only 1 percent of respondents said that 'None of the above' technologies are in use. Ninety-nine percent report some funding source for technology.

Digitization: Twenty-five percent reported activities in the past 12 months. Among the small libraries, only 8 percent reported any activities in that time period. Beyond the next 12 months, 31 percent expect to be involved in digitization. Among the survey groups, public libraries are the least involved in digitization activities.

Funding is the most-cited hindrance to digitization activities, though other institutional priorities, lack of expertise and staff time were also noted.

Only three percent of the responding public libraries have digitization policies in place, although 17 percent reported that they are developing policies. Two percent list their digital products with a registry, and seven percent have them listed in the libraries' catalogs.

Key Respondent Demographics

- At the time the surveys were sent, there were 7,555 public libraries eligible for surveying. Surveys were sent to 1,019 public libraries, and 237 responses were received. The response rate was 23 percent.
- The confidence level for the public library data is 90 percent (+/- 10 percent), which means the data are a reliable indicator of trends.
- The responding public libraries indicated the populations served as in **Figure 25**.

Figure 25: Responding Public Libraries and the Population Served

Population served	% of survey respondents	Size descriptor
0 to 4,999	13%	Small
5,000 to 9,999	14%	
10,000 to 24,999	15%	Medium
25,000 to 49,999	13%	
50,000 to 99,999	13%	
100,000 to 249,999	16%	Large

250,000 to 499,999	8%	
500,000 to 999,999	4%	
1 million or more	4%	

Exemplary Project: The Children of Birmingham—Past, Present, and Future
The Birmingham Cultural Alliance Program (BCAP), a collaboration of six museums and the public library funded by IMLS, take the city's children through the great decades of Birmingham's past. For the inner-city children, it is an opportunity to discover the rich legacy of their cultural heritage. They explore agricultural advances of George Washington Carver. They follow the heroic World War II flights of the Tuskegee Airmen. They listen to the music of jazz legends like Erskin Hawkins. They march with the visionaries of the Alabama Christian Movement for Human Rights from Birmingham's 16th Street Baptist Church--the epicenter of the Civil Rights Movement that changed the nation forever. http://www.imls.gov/closer/hlt_c0202.htm

The Status of Technology – Public Libraries

What technologies (hardware and software) does your institution currently use for its day-to-day operations? What technologies does it plan to acquire or implement in the next 12 months?

Figure 26 lists technologies used by public libraries in descending order. The six "basic" technologies are highlighted.

Figure 26: Technologies Currently in Use and Anticipated by Public Libraries

Technologies	Currently in use: % of respondents	Next 12 months: % of respondents
Access to the Internet	**99%**	**1%**
E-mail	**98%**	**1%**
Computerized catalog of your library collection (if any)	**90%**	**5%**
Desktop computers	**89%**	**1%**
Standard office software, e.g., word processing	**86%**	**1%**
Web site	**75%**	**14%**
Network server	72%	7%
Desktop publishing software	71%	3%
Graphics software	60%	4%
Accounting/payroll software	64%	4%
Database software for collections management	59%	2%
Notebook (laptop) computers	48%	7%
Intranet	37%	7%
Database software for membership development	27%	2%
PDAs, i.e., PalmPilot	15%	6%
Marketing and promotion software	10%	5%
Extranet	8%	2%
Video tours	3%	7%
Virtual reality tours	3%	5%
Point of Sale software	3%	1%
None of the above	**1%**	**52%**

- In libraries serving populations of more than 10,000, the use of technologies increases with each step to the next population group. Thus, public libraries serving populations of more than 100,000 have the heaviest use of all types of technology.
- Few libraries reported planning to add technologies in the next 12 months. Fifty-two percent checked 'None of the above.'
- Libraries planning to add technologies during the next 12 months are clustered among the population ranges serving 5,000 to 249,999. The one exception is 'Web site," for which all sizes of libraries have plans.

What are the current sources of funds for this technology? (Check all that apply.)

- Ninety-nine percent of public libraries report having some funding source for technology.
    - Operating funds (65 percent of all responding public libraries)

- State funds (56 percent)
- City government funds (45 percent)
- IMLS (LSTA-funded Grants to States and LSTA-funded National Leadership Grants program) (20 percent)

Exemplary Project: Diverse Needs, Diverse Solutions
The 63 libraries of the Queens Borough Public Library system, based in Jamaica, New York, serve two million people in one of the most culturally diverse counties in the U.S. It has the second largest English-as-a-Second-Language program in the nation and the highest circulation rate of any public library system in the country. Strong partnerships with schools and community groups facilitate outreach to key groups. "Latchkey" children work at the library after school to provide technology assistance to library patrons. Entrepreneurs visit the Small Business Resource Center for programs to help them find economic opportunity. For the area's most recent arrivals, the New American program provides "coping skills" and native-language collections. For them, the library is an information gateway to a new way of life.
http://www.imls.gov/closer/archive/hlt2_0400.htm

What technology does your institution currently use for programming? (Check all that apply.) What does it plan to use for programming in the next 12 months that it does not currently use?

- More than 42 percent of public libraries use technology to support programming, and more than 33 percent plan to add programming technologies in the next 12 months.
- Technology is currently used most often in programming to present educational programs via onsite computer (22 percent) and to present information on exhibits to the public via the Web (19 percent).
- Technology most often planned in the next 12 months: 'We provide programs and exhibits on our Web site' (18 percent).
- More than 64 percent of public libraries serving a population of 25,000 or less reported the use of technology to support programming as 'Not applicable.' But more than 85 percent of libraries serving a population of 500,000 or greater currently use technology to support programming, especially for 'Information on exhibits is presented to public via the Web.'

Technology is useful for your institution's programming because...? **(see Figure 27)**

Figure 27: Technology is Useful to Your Public Library Programming Because:

Benefits	Agreement among public libraries
Provides a richer educational experience	61%
Increases the number of people	55%

Makes programs more interactive	45%
Not applicable	30%

What hinders the use of technology in your institution's programming?

- 'Cost' (74 percent of all public libraries) and 'Lack of staff expertise' (54 percent) were identified as hindrances to the use of technology in programming. 'Lack of staff time' was a common write-in response.

Digitization Plans, Practices, and Policies - Public Libraries

In the past 12 months, have you been or are you currently involved in digitization, for example, current projects, funding, setting standards, implementing, etc.? **(see Figure 28)**

Figure 28: Digitization Activities in Small and Large Public Libraries

	All public libraries	Larger public libraries (population served over 10,000)	Smaller public libraries (population served under 10,000)
Digitization activities in the past 12 months?	Yes – 25% No – 75%	Yes – 30% (51) No – 70% (118)	Yes – 8% (5) No – 92% (54)

Figure 29 summarizes current and planned digitization activities among all public library respondents.

Figure 29: Current and Planned Digitization Activities in Public Libraries

Digitization activities in past 12 months	Digitization plans for next 12 months	Digitization plans beyond 12 months
Yes: 25%	Yes: 13%	Yes: 31%
No: 75%	No: 87%	No: 69%

What hinders your efforts at digitization?

Libraries were asked to rank the top three hindrances. **Figure 30** shows the rank among the responses.

Figure 30: Ranking of Digitization Hindrances for Public Libraries

Digitization hindrances	Currently digitizing	Next 12 months	Beyond 12 months
Lack of funds to support digitization	1	1 (tie)	1
Other projects have higher priorities	2	3 (tie)	2
Lack of available expertise	3	5 (tie)	3
Concern about costs of preservation and management	4	5 (tie)	4
Not applicable'	5	3 (tie)	*

'Other' with written comments emphasizing lack of staff and staff time	6	1 (tie)	5

*No response.

- Public libraries with no plans to digitize cited similar hindrances: 'Lack of funds to support digitization' and 'Other projects have higher priority.' These libraries also had high rates of response to 'Do not see a role for our institution in digitization' or 'Do not see the usefulness of digitization for our institution.'

Exemplary Project: Libraries Link Rural NY Residents to Job Information
Though a project funded by IMLS, rural residents of Livingston, Ontario, Wayne, and Wyoming Counties in New York need go no further than their local library to initiate a job search. The Pioneer Library System teamed with the New York State Department of Labor to make thirteen small, rural libraries points of access for essential employment services and information. http://www.imls.gov/closer/archive/hlt_10300.htm

What are the primary goals for your institution's digitizing activities?

Respondents were asked to rank their three most important goals from a list. **Figure 31** shows the overall ranking for each item.

Figure 31: Highest Priority Digitization Goals for Public Libraries

Highest priority digitization goals	Rank
Not applicable	1
Preserve materials of importance or value	2
Increase access to books, journals, documents, etc.	3
Provide access to digital collection on a Web site	4
Increase access to the collections and collections records	5
Reduce damage to original materials	6

- Goal priorities are fairly consistent across public libraries by size of population served.

What materials has your institution selected for digitization?

- Photographs (30 percent)
- Historical documents/archives (29 percent)
- 'Not applicable' was the most frequent response (54 percent) to the question about what is being digitized.

Where do you currently obtain funds to support your digitizing efforts? (Check all that apply.)

- Public libraries with funding for digitization activities (15 percent) reported these sources: Operating funds (14 percent), Gifts from donors (8 percent), Foundation

grants (7 percent), IMLS grants (7 percent) (IMLS' LSTA-funded Grants to States program).

Does your institution cooperate with other organizations to develop digitization programs, i.e. partnerships, consortia, etc.?

- Thirty-nine percent of public libraries that are currently digitizing report cooperative arrangements with other institutions, most frequently with historical societies, other public libraries, academic libraries, and SLAAs.

Does your institution have digitization policies in place? In development?

- Three percent of responding public libraries have digitization policies currently in place. 'Materials to be digitized' was the most frequently cited policy category.
- Seventeen percent of public libraries indicate they are developing digitization policies.

Does your institution allow access to its digital collection by the public?

- Forty-eight percent of public libraries that have some portion of their collection digitized allow access to their digital collections primarily use the Web or through their own computer network.
- For those public libraries that allow access, the target audiences are 'anyone with Internet access' (75 percent) and 'visitors on site' (45 percent).
- Seventy-nine percent of these public libraries give free access (no charge) to 'Anyone with Internet access.'

Are your digital products listed with any digital registry?

- Only two percent of responding public libraries listed their digital products with a registry.
- Seven percent of responding libraries have digital products listed in their own catalogs.

Survey Results for Academic Libraries

Summary of the Survey Findings

Technology use: One hundred percent of academic libraries that responded indicated they currently use some kinds of technologies. The technologies most in use are: Access to Internet, e-mail, Web site, desktop computers, computerized catalogs, and standard office software. Below this group are technologies in use in 57 percent to 80 percent of the academic libraries: network servers, desktop publishing software, database software for collections management, accounting/payroll software, and Intranets.

When asked about implementing technologies in the coming year, there were significantly fewer responses. Adding 'video tours' and 'notebook (laptop) computers' were noted most often.

Digitization: Thirty-four percent of academic libraries reported digitization activities within the past 12 months. Nineteen percent expect to be involved in digitization work in the next 12 months, and 44 percent beyond 12 months.

Hindrances to digitization include lack of funds, other institutional priorities, concerns about the costs of preservation and management, and staff issues, such as expertise and time.

The highest priority in academic digitization efforts is increasing access to books, journals, documents, etc. The collections they focus on are historical documents and archives, photographs, and course material.

Thirty-eight percent of the academic libraries that are digitizing reported that they cooperate with other organizations in digitization programs.

Only eight percent of academic libraries have digitization policies currently in place, though 16 percent report having some in development.

Six percent have listed their digital content in a digital register, though 21 percent list digital content in their online catalogs.

Key respondent demographics

- At the time the surveys were sent, there were 3,862 academic libraries eligible for surveying. Surveys were sent to 300 academic libraries and 80 responses were received. The response rate was 27 percent.
- The confidence level for the academic library data is 90 percent (+/- 10 percent), which means the data are a reliable indicator of trends.

The Status of Technology – Academic Libraries

What technologies (hardware and software) does your institution currently use for its day-to-day operations? What technologies does it plan to acquire or implement in the next 12 months?

Figure 23 lists the technologies used by academic libraries in descending order. Six "basic" technologies reported by academic libraries are highlighted.

Figure 32: Technologies Currently in Use in Academic Libraries

	% of survey respondents
Access to the Internet	**99%**
E-mail	**99%**
Web site	**95%**
Desktop computers	**94%**
Computerized catalog of your library collection (if any)	**92%**
Standard office software, e.g., word processing	**87%**
Network server	80%
Desktop publishing software	68%
Database software for collections management	67%
Accounting/payroll software	58%
Intranet	57%
Notebook (laptop) computers	48%
PDAs, i.e., PalmPilot	29%
Extranet	23%
Database software for membership development	19%
Marketing and promotion software	9%
Virtual reality tours	9%
Video tours	8%
Point of Sale software	5%
None of the above	0%

There were considerably fewer responses (a maximum of six) to the question about technologies planned in the next 12 months:

- None of the above (37 percent)
- Video tours (21 percent)
- Notebook (laptop) computers (16 percent)
- Computerized catalog of your library collection (12 percent)
- Database software for collections management (12 percent)

Exemplary Project: Teachers Redraw Lesson Plans with Art Databases
Art treasures from around the world are making their way into classrooms in central Indiana. An IMLS LSTA-funded National Leadership Grant supports a joint project of the libraries of Indiana University-Purdue University Indianapolis and the Indianapolis Museum of Art that delivers images of artworks directly to teachers through the Internet. The project is proving that the study of art enhances a variety of subjects, including geography, math, and science. http://www.imls.gov/closer/archive/hlt_c0700.htm

What are the current sources of funds for this technology? (Check all that apply.)

- The highest responses were:
    - Operating funds (73 percent)
    - State funds (5 percent)
    - Gifts from donors (32 percent)
    - IMLS (15 percent)
    - No funding for technology (no responses)

What technology does your institution currently use for programming? (Check all that apply.) What does it plan to use for programming in the next 12 months that it does not currently use?

- Sixty-one percent of academic libraries indicate that technology is currently used to support programming. More than 54 percent indicate they plan to add programming technologies in the next 12 months.
- The most common uses are 'Educational programs presented to the public via the Web' (37 percent) and 'Educational programs presented via onsite computer' (34 percent).
- 'Providing programs and exhibits on our Web site' is the technology most often planned (28 percent).

Technology is useful for your institution's programming because...?

- Provides a richer educational experience (74 percent)
- Increases the number of people who learn from programs (69 percent)
- Makes programs more interactive (68 percent)

What hinders the use of technology in your institution's programming?

- 'Cost' (73 percent) and 'Lack of staff expertise' (53 percent) were identified as hindrances.

Digitization Plans, Practices, and Policies – Academic Libraries

In the past 12 months, have you been or are you currently involved in digitization, for example, current projects, funding, setting standards, implementing, etc.?

Figure 33 summarizes the responses to questions about current and future digitization activities.

Figure 33: Current and Planned Digitization Activities in Academic Libraries

Digitization activities in past 12 months	Digitization plans for next 12 months	Digitization plans beyond 12 months
Yes: 34%	Yes: 19%	Yes: 44%
No: 66%	No: 81%	No: 56%

Exemplary Project: A New Way of Playing Old Songs
The Johns Hopkins University maintains one of the country's largest online collections of sheet music, with images of more than 29,000 pages of popular American music from 1780 to 1960. In an ambitious project supported by an IMLS LSTA-funded National Leadership Grant, the collection will be enhanced allowing users to see the sheet music images, play the scores, and search the lyrics with pinpoint accuracy. The collection will also serve as a testbed for a workflow management system that can help other large collection holders streamline the process of creating digital library repositories.
http://www.imls.gov/closer/archive/hlt_l0900.htm

What hinders your efforts at digitization?

As academic libraries look to the next 12 months, they ranked four hindrances the same: 'Lack of funding to support digitization,' 'Other projects have higher priorities,' 'Other' comments that emphasized lack of staff and staff time, and 'Not applicable.' **Figure 34** shows the rank among responses.

Figure 34: Ranking of Digitization Hindrances in Academic Libraries

Digitization hindrances	Currently digitizing	Beyond 12 months
Lack of funds to support digitization	1	1
Other projects have higher priorities	2	2
Concern about costs of preservation and management	3	4
Lack of available expertise	4	3

As academic libraries look to the next 12 months, they ranked four hindrances the same: 'Lack of funding to support digitization,' 'Other projects have higher priorities,' 'Other' comments that emphasized lack of staff and staff time, and 'Not applicable.' **Figure 34** shows the rank among responses.

What are the primary goals for your institution's digitizing activities?

Respondents were asked to rank their three most important goals from a list. **Figure 35** shows the overall ranking for each item.

Figure 35: Highest Priority Digitization Goals in Academic Libraries

Highest priority digitization goals	Rank
Increase access to books, journals, documents, etc.	1
Preserve materials of importance or value	2
Increase access to the collections and collections records	3
Provide access to digital collection on a Web site	4
Reduce damage to original materials	5
Not applicable	6
Support educational programs	7

What materials has your institution selected for digitization? (Check all that apply.)

Materials cited by academic libraries that reported digitization activities:

- Historical documents and archives (33 percent)
- Photographs (25 percent)
- Course material (25 percent)

Materials for future digitization efforts would also include 'Images of artifacts.'

- 'Not applicable' was the most frequent response (49 percent) to the question of what is being digitized.

Where do you currently obtain funds to support your digitizing efforts? (Check all that apply.)

Academic libraries with funding for digitization activities (22 percent) cited these funding sources:

- Operating funds (25 percent)
- State funds (14 percent)
- IMLS grants (11 percent) (IMLS' grant programs funded through LSTA)

Exemplary Project: Teaching with Digital Content—Describing, Finding, Using Digital Cultural Heritage Materials

Teaching with digital primary source documents makes a range of exciting possibilities available to teachers, librarians, and museum curators and educators. Yet it also brings new challenges. New programs need to be developed to integrate digital primary source materials into K-12 curriculum and assignments, as well as into the educational programs of museums and libraries. An IMLS LSTA-funded National Leadership Grant project at the University of Illinois Library at Urbana-Champaign helps these educators incorporate digitized primary source materials into their classes. They obtain technology training, learn how to create digital collections that provide historical context, explore the use of modes of communication, such as e-mail discussion lists, and study strategies to enhance visual literacy.
http://images.library.uiuc.edu/projects/tdc/

Does your institution cooperate with other organizations to develop digitization programs, i.e. partnerships, consortia, etc.?

- Almost 38 percent of academic libraries currently digitizing report that they are in cooperative arrangements, most frequently citing other 'Academic libraries,' 'State library agencies,' and 'Consortia,' as partners.
- More than 62 percent of academic libraries currently digitizing are not in cooperative arrangements with other institutions.
- For academic libraries currently digitizing, 91 percent reported that they play no role in digitization projects beyond their institution. Similarly, for academic libraries not currently digitizing, 91 percent reported that they play no role in digitization projects beyond their institution.

Does your institution have digitization policies in place? In development?

- Eight percent of responding academic libraries have digitization policies currently in place.
- Sixteen percent of the libraries have digitization policies in development. The most frequently cited subject for developing policies is 'Preservation.'

Does your institution allow access to its digital collection by the public?

- Eighty-seven percent of academic libraries that have some portion of their collection digitized report that they allow access to their digital collections, primarily though the Web, followed by their own computer networks.
- For those academic libraries that allow access, the primary target audiences are 'Faculty at your institution' (47 percent) and 'Researchers/scholars' (41 percent).
- Seventy-two percent of these academic libraries give free access (no charge) to 'Anyone with Internet access.'

Are your digital products listed with any digital registry?

- Only six percent of responding academic libraries have digital products listed with a registry.
- Twenty-one percent have digital products listed in their own catalogs.
-

Survey Results for State Library Administrative Agencies (SLAAs)

Summary of Survey Findings

Technology use: One hundred percent of SLAAs that responded indicated they currently use some kinds of technologies. The technologies most in use are: desktop computers, access to the Internet, e-mail, network servers, standard office software, and Web site. All of these are in use in at least 97 percent of responding SLAAs.

The next group of technologies that were listed at 57 percent and higher are: computerized catalogs, accounting/payroll software, desktop publishing software, graphics software, intranet, and database software for collections management.

The SLAAs that plan to add technologies in the next year will focus on Intranets, virtual reality tours, and PDAs (hand-held computers).

Digitization: More than 78 percent of SLAAs reported digitization activities in the past 12 months. Thirty-eight percent plan activities in the next 12 months, and 40 percent beyond 12 months. Among all of the groups, the SLAAs are the most actively involved in digitization.

Hindrances they cited include lack of funds, other institutional priorities, and lack of available expertise.

The highest priorities in their digitization efforts are to increase access to books, journals, collections, and collection records, preserve materials of importance or value, reduce damage to original materials, and provide access via a Web site.

The collections they focus on are historical documents and archives, photographs, and government publications.

Twenty-five of the responding SLAAs have digitization policies in place, and 42 percent have them in development.

Exemplary Project: Connecticut History Online

With IMLS funding, the Connecticut Historical Society, in partnership with Mystic Seaport and the Thomas Dodd Research Center of the University of Connecticut, developed a comprehensive, Web-based virtual collection of graphic images that document the history of the Connecticut community. The project addressed the need for common metadata, a variety of search mechanisms, and resources for using the database in the educational environment. The partnership is engaged in a long-term effort to encourage teachers to make meaningful use of the database.
www.cthistoryonline.org/

The Status of Technology – SLAAs

What technologies (hardware and software) does your institution currently use for its day-to-day operations? What technologies does it plan to acquire or implement in the next 12 months?

Figure 36 lists technologies used by SLAAs in descending order. The seven "basic" technologies are highlighted.

Figure 36: Technologies Currently in Use in SLAAs

	% of survey respondents
Desktop computers	**100%**
Access to the Internet	**100%**
E-mail	**100%**
Network server	**100%**
Notebook (laptop) computers	**97%**
Standard office software, e.g., word processing	**97%**
Web site	**97%**
Computerized catalog of your library collection (if any)	92%
Accounting/payroll software	89%
Desktop publishing software	89%
Graphics software	68%
Intranet	65%
Database software for collections management	57%
PDAs, i.e., PalmPilot	30%
Database software for membership development	19%
Extranet	19%
Marketing and promotion software	5%
Point of Sale software	8%
Video tours	8%
Virtual reality tours	3%
None of the above	0%

- Thirty percent of SLAAs indicated that they do not plan to add technologies in the next 12 months.
- Those that do plan to add technologies listed 'Intranet' (26 percent), 'Virtual reality tours' (22 percent), 'PDAs,' i.e., hand-held computers (22 percent).

Exemplary Project: State Libraries Untangle Web of State and Local Information
State and local government organizations post information for citizens on the Internet, but it is often still difficult to navigate through these sites to find the information needed. With an IMLS LSTA-funded National Leadership Grant, the Washington State Library demonstrated to four other state libraries how to develop a useful gateway to online government information. http://www.imls.gov/closer/archive/hlt_l0500.htm

What are the current sources of funds for this technology? (Check all that apply.)

- State funds (92 percent)

- IMLS (62 percent) (IMLS' LSTA-funded Grants to States program)
- Operating funds (38 percent).
- All of the SLAAs have funds for technology. (None indicated having no funding source.)

What technology does your institution currently use for programming? (Check all that apply.) What does it plan to use for programming in the next 12 months that it does not currently use?

SLAAs identified two current programming uses most often:

- Disseminate research findings and publications via the Web site (60 percent)
- Information on exhibits is presented to the public via the Web (43 percent)
- More than 34 percent indicated that they plan to add a different programming technology use next year, particularly 'We want to provide programs and exhibits on our Web site' (19 percent).

Technology is useful for your institution's programming because...?

- Makes programs more interactive (58 percent)
- Increases the number of people who learn from programs (55 percent)
- Provides a richer educational experience for patrons (50 percent)

What hinders the use of technology in your institution's programming?

- Lack of staff expertise (53 percent)
- Cost (50 percent)
- Write-in responses emphasized lack of time and available staff.

Digitization Plans, Practices, and Policies – SLAAs

In the past 12 months, have you been or are you currently involved in digitization, for example, current projects, funding, setting standards, implementing, etc.?

- More than 78 percent of all SLAAs report digitization activities in the past 12 months.
- Thirty-eight percent of SLAAs report digitization plans in the next 12 months, and 40 percent beyond the next 12 months.

What hinders your efforts at digitization?

SLAAs were asked to rank the top three hindrances. **Figure 37** cumulatively ranks the responses.

Figure 37: Ranking of Digitization Hindrances for SLAAs

	Currently digitizing	Next 12 months	Beyond 12 months
Lack of funds to support digitization	1	1 (tie)	1
Other projects have higher priorities	2	3 (tie)	2
Lack of available expertise	3	5	3
Concern about costs of preservation and management	4	6	4
'Other' with written comments emphasizing lack of staff and staff time	5	1 (tie)	5
Not applicable	6	3 (tie)	*

*No Response

Exemplary Project: High-Tech Teaching in Small Town Texas
The border town of Cotulla, Texas, is a world away from the busy city of San Antonio. Yet thanks to satellite receiver equipment purchased with IMLS funding, townsfolk there, and in three other isolated Texas towns, are now linked to a variety of professional training programs and other big-city resources. The librarians, who are far from state universities, have access to continuing education programming from the Texas State Library and the American Library Association.
http://www.imls.gov/closer/archive/hlt_l0700.htm

What are the primary goals for your institution's digitizing activities?

Respondents were asked to rank their three most important goals from a list. **Figure 38** shows the overall ranking for the highest priority goals.

Figure 38: Highest Priority Digitization Goals for SLAAs

	Rank
Increase access to books, journals, documents, etc.	1
Preserve materials of importance or value	2
Increase access to the collections and collections records	3
Provide access to digital collection on a Web site	4
Reduce damage to original materials	5
Increase access to state services	6
Provide greater information about the institution's collections to artists, scholars, students, teachers, and the public	7

What materials has your institution selected for digitization? Check all that apply.

- Historical documents/archives (60 percent)
- Photographs (43 percent)

- Government publications (37 percent)

Future digitization efforts would include the same kinds of materials, plus

- Maps (38 percent)
- Manuscripts (35 percent)

Where do you currently obtain funds to support your digitizing efforts? (Check all that apply.)

- IMLS (54 percent)
- State funds (46 percent)
- Operating funds (16 percent)
- Thirty percent of respondents indicate they currently have no funding for digitization

Does your institution cooperate with other organizations to develop digitization programs, i.e. partnerships, consortia, etc.?

- Seventy-two percent of SLAAs that have current digitization projects cooperate with other institutions to develop digitization programs. Cooperative efforts occur most frequently with 'Academic libraries,' 'Individual public libraries,' and 'State archives.'

Thirty-one percent of the SLAAs with current digitization projects report some roles with other institutions to develop digitization programs:

- Encourage cooperative projects
- Issue sub-grants
- Provide best practices or guidelines
- Provide information
- Provide staff or equipment for digitization efforts
- Set policies or standards
- Undertake demonstration projects

Does your institution have digitization policies in place? In development?

Twenty-five of the responding SLAAs have digitization policies currently in place. The policies most cited include:

- Best practices
- Digital format

- Intellectual property issues
- Materials to be digitized
- Priorities for digitization
- Quality control

- Forty-two percent of SLAAs indicate they have digitization policies in development. Among these respondents, the two most frequently cited policies in development are 'Materials to be digitized' and 'Priorities for digitization.'

Does your institution allow access to its digital collection by the public?

- The SLAAs that have some portion of their collection digitized (89 percent) report that they allow access to their digital collections, primarily via the Web.
- Among the SLAAs that allow access, the primary target audience is 'Anyone with Internet access' (83 percent), followed by 'Visitors onsite at the institution' (44 percent).
- Eighty-three percent of these SLAAs give free access (no charge) to 'Anyone with Internet access.'

Are your digital products listed with any digital registry?

- Only three percent of responding SLAAs have digital products listed with any registry. Registries include: Association of Research Libraries (ARL) and the Colorado Digitization project.
- Twenty-eight percent of SLAAs have digital products listed in their own catalogs.

Survey Results: IMLS Roles

IMLS Role: Implementing Technologies in Individual Institutions

Respondents were asked to rank the three most important IMLS roles in terms of individual institutions. **Figure 39** shows the cumulative rankings of responses by institution type. (For example, 'Provide funding' is designated the most important IMLS role by every institution type. The second most important role is 'Identify and promote standards and best practices in technology' by all but public libraries, which ranked that role fourth.)

'Provide funding' was ranked most highly among all the groups.

Figure 39: Most Important Ways IMLS Can Help Individual Institutions Implement Technology

	Museums	Public libraries	Academic libraries	SLAAs
Provide funding	1	1	1	1
Identify and promote standards and best practices in technology	2	4	2	2
Provide information on sources of funding	3	3	4	3
Inform about cost effective technologies and efficient implementation	4	2	3	4
Provide information about available and appropriate technologies	5	5	7	5 (tie)
Identify guidelines for costs and resources required for implementation	6	7	6	7
Don't know what IMLS' role is or should be	7 (tie)	6	5	11
Identify and provide information about model technology implementations	7 (tie)	8	8	5 (tie)
Help museums/libraries evaluate effectiveness of their technologies	9	10	11	9
Identify advantages of implementing technologies	10	11	9 (tie)	12
Assess and report status of technology adoption and implementation	11	9	9 (tie)	8
IMLS does not have role in technology implementation	12	12	12	10

IMLS Role: Implementing Technologies in the Museum and Library Communities

Respondents were asked to rank the three most important IMLS roles for the museum and library communities. **Figure 40** shows the cumulative ranks for the responses.

Figure 40: Most Important Ways IMLS Can Help the Museum and Library Communities Implement Technology

	Museums	Public libraries	Academic libraries	SLAAs
Provide funding	1	1	1	1
Identify and promote standards and best practices in technology	2	2	2	2
Provide information on sources of funding	3	3	3	3 (tie)
Inform about cost effective technologies and efficient implementation	4	4	4	8
Provide information about available and appropriate technologies	5	5	5	7
Identify guidelines for costs and resources required for implementation	6 (tie)	7	9	5
Don't know what IMLS' role is or should be	6 (tie)	6	6	11 (tie)
Identify and provide information about model technology implementations	8	8	7	6
Assess and report status of technology adoption and implementation	9	9	10	3 (tie)
Help museums/libraries evaluate effectiveness of their technologies	10	10	11	9 (tie)
Identify advantages of implementing technologies	11	11	8	11 (tie)
IMLS does not have role in technology implementation	12	12	12	9 (tie)

Exemplary Project: Islands Apart Link Up
For the U.S. Virgin Islands, the digital divide is a literal divide. Isolated from the mainland and separated from each other by miles of water, the benefits of the Internet for the islands are dramatic. With support from an IMLS LSTA-funded National Leadership Grant, the University of the Virgin Islands and its partners are developing a comprehensive approach for introducing technology to island libraries. At the same time, they are using technology to bring resources to the islands and to share the islands' unique cultural materials with the world. http://www.imls.gov/closer/archive/hlt_l0101.htm

IMLS Role: Digitization Initiatives in Individual Institutions

Respondents were asked to rank the three most important IMLS roles in terms of individual institutions. **Figure 41** shows the cumulative ranks for the responses.

Figure 41: Most Important Ways IMLS Can Help Individual Institutions with Digitization Initiatives

	Museums	Public libraries	Academic libraries	SLAAs
Fund digitization projects	1	1	1	1
Identify costs, resources required to develop, manage, and maintain access to digital resources	2	3	6	5
Identify other sources of funding	3	2	2	2
Identify processes involved and best practices available	4	5	3	4
Identify and provide information about model digitization projects	5	6	4	3
Information about the advantages and challenges of digitization	6	9	10	13
Referral information on projects, resources, standards, guidelines etc.	7	7	8	6 (tie)
Set standards for digitization	8	8	9	10
Don't know what IMLS' role is or should be	9	4	5	16
Help evaluate libraries/museums evaluate effectiveness of their digitization projects	10	15	11 (tie)	11
Help museums/libraries understand and deal with intellectual property issues	11	14	11 (tie)	12
Assist in standards adoption	12	16	13	8
Lead digital library for education initiative to support development of Web portal/site to enable users to search museum/library digital resources	13	11	15	15
Lead and promote national digitization efforts	14	10	14	9
Coordinate digitization projects among institutions	15	12	16	17
Encourage partnerships or consortia to collaborate on digitization	16	13	7	6 (tie)
IMLS does not have a role in digitization efforts	17	17	17	14

- 'Provide funding' and 'Identify other sources of funding' were the strongest responses among most of the groups.
- 'Don't know what IMLS' role is or should be' ranked strongly in both public libraries and academic libraries.

IMLS Role: Digitization Initiatives in the Museum and Library Communities

Respondents were asked to rank the three most important IMLS roles in terms of the museum and library communities. **Figure 42** shows the cumulative ranks for the responses.

Figure 42: Most Important Ways IMLS Can Help the Museum and Library Communities with Digitization Initiatives

	Museums	Public libraries	Academic libraries	SLAAs
Fund digitization projects	1	1	1	1
Identify processes involved and best practices available	2	5	2	6
Identify costs, resources required to develop, manage, and maintain access to digital resources	3	2	4	5

Identify and provide information about model digitization projects	4	6	3	2
Information about the advantages and challenges of digitization	5	10	7	12 (tie)
Identify other sources of funding	6	4	6	3
Set standards for digitization	7	7	5	12 (tie)
Referral information on projects, resources, standards, guidelines etc.	8	9	10 (tie)	4
Don't know what IMLS' role is or should be	9	3	8	16
Help evaluate libraries/museums evaluate effectiveness of their digitization projects	10	16	15	9
Help museums/libraries understand and deal with intellectual property issues	11	13	12	11
Lead digital library for education initiative to support development of Web portal/site to enable users to search museum/library digital resources	12 (tie)	11	14	15
Lead and promote national digitization efforts	12 (tie)	8	13	8
Encourage partnerships or consortia to collaborate on digitization	14	12	9	7
Coordinate digitization projects among institutions	15	15	16	17
Assist in standards adoption	16	14	10 (tie)	10
IMLS does not have a role in digitization efforts	17	17	17	14

- 'Fund digitization projects' was strong across all groups.
- Possible roles that deal with promoting standards and identifying best practices and model projects are also strong.
- The SLAAs' perceptions of IMLS' roles are somewhat different than those of the other groups, though there are variations across all the groups.

Technology Survey for Libraries and Museums

OMB #: 3137-0040
Expiration Date: 01/31/2004

Instructions

Purpose of the Survey

This survey is being conducted by The Center for Organizational Excellence (COE) for the Institute of Museum and Library Services (IMLS). IMLS is a Federal agency that provides grants to museums and libraries to improve their operations and services to the public. IMLS will use the results of this survey to determine an appropriate role for IMLS in supporting technology applications, particularly in the area of digital access to information, in providing museum and library services to the public.

The purpose of this survey is to collect information on technology use, plans, and policies of libraries, museums and state library agencies, especially in the area of digitization. [Digitization is the process of converting, creating and maintaining books, art works, historical documents, photos, journals, etc. in electronic representations so they can be viewed via computer and other devices.]

How the Results will be Used

The information provided by the survey results will help IMLS shape the focus and thrust of the agency's grant programs and related activities. The published information, which should be available in fall of 2001, can be used by museums, libraries and state library agencies to understand where they are in the continuum of technology implementation and to plan for further technology developments.

Completing the Survey

This survey is being sent to a national sample of museums, public and academic libraries, and to all state library agencies. Therefore, it is extremely important that you do not forward this survey to other institutions. The most appropriate person to complete the survey will be the one who has an understanding of the status and role of technology throughout the museum or library. It is recommended that you review the survey in advance, to get a better idea of the kinds of questions being asked and to gather information you might need to answer the questions.

As the audience for this survey is broad, you may encounter questions that you feel are not applicable to your institution. Please mark the response "not applicable" in these cases,

and continue on with the questions. This survey will take you 30 minutes or less to complete.*

Confidentiality

Your responses will be confidential. This survey is submitted directly to COE for analysis and your responses will be combined with responses from other survey respondents. The results will be presented in summary form to IMLS.

If You Need Help

If you have any questions, please contact Kirstin Austin at (301) 948-1922, ext. 304 or Janine Johnson at (301) 948-1922, ext. 318 or send email to kaustin@center4oe.com or jjohnson@center4oe.com.

Please return this completed survey by Friday, June 15, 2001.

Thank You

Thank you for taking the time to complete the survey.

** This estimate includes the time needed to review instructions, search existing data sources, gather and maintain the data needed, and complete and review the information. If the respondent has comments on the burden estimate or other aspects of this survey please send them to the Institute of Museum and Library Services, 1100 Pennsylvania Ave. NW, Washington D.C. 20506. You are not required to respond to this request for information unless it displays a currently valid OMB control number.*

Background on the Respondent

Background on Museums

If you are a museum, complete this section and skip the next section of the questions concerning the background of libraries. Then complete the rest of the survey starting with the section entitled "Section on the Status of Technology."

The following questions concern the museum that you represent.

1. Check the type of museum:
   - ❑ Aquarium
   - ❑ Arboretum or botanical garden
   - ❑ Art museum
   - ❑ Children's museum
   - ❑ General museum
   - ❑ Historic house/site
   - ❑ History museum
   - ❑ Natural history/anthropology museum
   - ❑ Nature center
   - ❑ Planetarium
   - ❑ Science or technology center
   - ❑ Zoological park
   - ❑ Specialized, distinct subject museum

2. If you selected "Specialized, distinct subject museum" in question 1, describe the subject of the museum. _____

3. What is the size of the museum's annual budget? (Check one)
   - ❑ Less than $250,000
   - ❑ $250,000 - $500,000
   - ❑ $500,001- $1,000,000
   - ❑ $1,000,001 - $2,000,000
   - ❑ $2,000,001 - $6,000,000
   - ❑ $6,000,001 – $10,000,000
   - ❑ Over $10,000,000

4. In what state is the museum? (Check one)
   - ❑ Alabama
   - ❑ Alaska
   - ❑ Arizona
   - ❑ Arkansas
   - ❑ California
   - ❑ Colorado
   - ❑ Connecticut
   - ❑ Delaware
   - ❑ District of Columbia
   - ❑ Florida
   - ❑ Georgia
   - ❑ Hawaii
   - ❑ Idaho
   - ❑ Illinois
   - ❑ Indiana
   - ❑ Iowa
   - ❑ Kansas
   - ❑ Kentucky
   - ❑ Louisiana
   - ❑ Maine
   - ❑ Maryland
   - ❑ Massachusetts
   - ❑ Michigan
   - ❑ Minnesota
   - ❑ Mississippi
   - ❑ Missouri
   - ❑ Montana
   - ❑ Nebraska
   - ❑ Nevada
   - ❑ New Hampshire
   - ❑ New Jersey
   - ❑ New Mexico
   - ❑ New York
   - ❑ North Carolina
   - ❑ North Dakota
   - ❑ Ohio
   - ❑ Oklahoma
   - ❑ Oregon
   - ❑ Pennsylvania
   - ❑ South Carolina

- ❑ South Dakota
- ❑ Tennessee
- ❑ Texas
- ❑ Utah
- ❑ Vermont
- ❑ Virginia
- ❑ Washington
- ❑ West Virginia
- ❑ Wisconsin
- ❑ Wyoming

5. What is your job title? _____

6. What is the size of the staff at your institution?
   Number of Full Time Equivalents, paid ____
   Number of Full Time Equivalents, volunteer ____

Background on Libraries and State Library Agencies

If you are a library, complete this section and skip the next section of the questions concerning the background of museums. Then complete the rest of the survey starting with the section entitled "Section on the Status of Technology."

The following questions concern the library or state library agency you represent.

1. Check type of library/library agency:
   - ❑ Public library (Go to questions 2, 3, and 6)
   - ❑ Academic library (Go to questions 2, 4, 5, and 6)
   - ❑ State library agency (Go to questions 2, 5, and 6)

2. In what state is your library or state library agency? (Check one)
   - ❑ Alabama
   - ❑ Alaska
   - ❑ Arizona
   - ❑ Arkansas
   - ❑ California
   - ❑ Colorado
   - ❑ Connecticut
   - ❑ Delaware
   - ❑ District of Columbia
   - ❑ Florida
   - ❑ Georgia
   - ❑ Hawaii
   - ❑ Idaho
   - ❑ Illinois
   - ❑ Indiana
   - ❑ Iowa
   - ❑ Kansas
   - ❑ Kentucky
   - ❑ Louisiana
   - ❑ Maine
   - ❑ Maryland
   - ❑ Massachusetts
   - ❑ Michigan
   - ❑ Minnesota
   - ❑ Mississippi
   - ❑ Missouri
   - ❑ Montana
   - ❑ Nebraska
   - ❑ Nevada
   - ❑ New Hampshire
   - ❑ New Jersey
   - ❑ New Mexico
   - ❑ New York
   - ❑ North Carolina
   - ❑ North Dakota
   - ❑ Ohio
   - ❑ Oklahoma
   - ❑ Oregon
   - ❑ Pennsylvania
   - ❑ South Carolina
   - ❑ South Dakota
   - ❑ Tennessee
   - ❑ Texas
   - ❑ Utah
   - ❑ Vermont
   - ❑ Virginia
   - ❑ Washington
   - ❑ West Virginia
   - ❑ Wisconsin
   - ❑ Wyoming

3. What is the size of the population served by your library? (Check one)
   - ❑ Up to 4,999
   - ❑ 5,000-9,999
   - ❑ 10,000-24,999
   - ❑ 25,000-49,999
   - ❑ 50,000-99,999
   - ❑ 100,000-249,000
   - ❑ 250,000-499,000
   - ❑ 500,000-999,999
   - ❑ 1 million or more

4. Your library is in which type of academic institution? (Check one)
   - ❑ Private 2 year college/community college
   - ❑ Public 2 year college/community college
   - ❑ Private 4 year college
   - ❑ Public 4 year college
   - ❑ Private university
   - ❑ Public university

5. Is your library circulating or non-circulating?
   - ❑ primarily circulating
   - ❑ primarily non-circulating
   - ❑ not applicable

6. What is your job title?_____

7. What is the size of the staff at your institution?
   Number of Full Time Equivalents, paid ____
   Number of Full Time Equivalents, volunteer ____

Section on Status of Technology

What technologies (hardware software) does your institution currently use for its day-to-day operations? (Check all that apply)

- ❑ Access to the Internet
- ❑ Accounting/payroll software
- ❑ Computerized catalogue of your library collection (if any)
- ❑ Database software for collections management
- ❑ Database software for membership development
- ❑ Desktop computers
- ❑ Desktop publishing software
- ❑ E-mail
- ❑ Extranet
- ❑ Graphics software
- ❑ Intranet
- ❑ Marketing and promotion software
- ❑ Network server
- ❑ Notebook (laptop) computers
- ❑ PDAs, i.e., PalmPilot
- ❑ Point of Sale software
- ❑ Standard office software, e.g., word processing, spreadsheet
- ❑ Video tours
- ❑ Virtual reality tours
- ❑ Web site
- ❑ Other technology (Please list)

  _____
- ❑ None of the above

What are the current sources of funds for this technology? (Check all that apply)

- ❑ Endowment funds
- ❑ Foundation grants
- ❑ Gifts from donors
- ❑ Grants from other Federal agencies, e.g., Dept of Ed, NEH
- ❑ IMLS LSTA State Program and National Leadership Grants
- ❑ IMLS Museum National Leadership Grants
- ❑ In-kind contributions
- ❑ Matching funds
- ❑ Operating funds
- ❑ State funds
- ❑ City government funds
- ❑ County government funds
- ❑ Other local government funds
- ❑ Other local funds
- ❑ Other (Please list)

  _____
- ❑ We have no funding for technology

If your institution does not have technology available to manage its operations, do you rely on staff's personal technology (e.g., home computer, personal e-mail, etc.)?

- ❑ No
- ❑ Yes
- ❑ Not applicable

If your institution does not currently use the following technology, which technology does it plan to acquire or implement in the next 12 months? (Check all that apply)

- ❑ Access to the Internet
- ❑ Accounting/payroll software
- ❑ Computerized catalogue of your library collection (if any)
- ❑ Database software for collections management
- ❑ Database software for membership development
- ❑ Desktop computers
- ❑ Desktop publishing software
- ❑ E-mail
- ❑ Extranet
- ❑ Graphics software
- ❑ Intranet
- ❑ Marketing and promotion software
- ❑ Network server
- ❑ Notebook (laptop) computers
- ❑ PDAs, i.e., PalmPilot
- ❑ Point of Sale software
- ❑ Standard office software, e.g., word processing, spreadsheet
- ❑ Video tours
- ❑ Virtual reality tours
- ❑ Web site
- ❑ Other technology (Please list) _____
- ❑ None of the above

5. What technology does your institution currently use for programming? (Check all that apply)
   - ❑ Orientation, introductory and educational information on exhibits is presented via onsite computer
   - ❑ Orientation, introductory and educational information on exhibits is presented to the public via the Web
   - ❑ Educational programs are presented via on-site computer
   - ❑ Educational programs are presented to the public via the Web
   - ❑ We disseminate research findings and publications by our institution's staff via the Web site
   - ❑ We provide programs and exhibits on our Web site
   - ❑ Other (Please list) _____
   - ❑ Not applicable

6. What technology does your institution plan to use for programming in the next 12 months that it does not currently use? (Check all that apply)
   - ❑ Orientation, introductory and educational information on exhibits is presented via onsite computer
   - ❑ Orientation, introductory and educational information on exhibits is presented to the public on-line
   - ❑ Educational programs are presented via onsite computer
   - ❑ Educational programs are presented to the public on-line
   - ❑ We want to disseminate research findings and publications by our institution's staff via the Web site
   - ❑ We want to provide programs and exhibits on our Web site
   - ❑ Other (Please list) _____
   - ❑ Not applicable

7. Please indicate your responses to the following statements. If the item is not relevant to your institution, please select "not applicable". Select the appropriate number for each statement below.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree
6 = Not applicable

Technology is useful for your institution's programming because it:

Makes programs more interactive
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Provides a richer educational experience for patrons
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Increases the number of people who learn from programs
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Other (Please list) _____
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

8. Please indicate your responses to the following statements. If the item is not relevant to your institution, please select "not applicable". Select the appropriate number for each statement below.

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree
6 = Not applicable

What hinders the use of technology for your institution's programming:

Cost
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Concerns over intellectual property issues
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Lack of staff expertise
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Not appropriate for our collection
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Other (Please list) _____
❑ 1 ❑ 2 ❑ 3 ❑ 4 ❑ 5 ❑ 6

Section on Digitization Plans, Practices, and Policies

1. Digitization is the process of converting, creating, and maintaining books, art works, historical documents, photos, journals, etc. in electronic representations so they can be viewed via computer and other devices. In the past 12 months, have you been or are you currently involved in digitization, for example, current projects, funding, setting standards, implementing, etc?
   - ❑ No (Go to question 2)
   - ❑ Yes (Go to question 4)

2. Do you have digitization-related plans that will be started in the next 12 months, but have not started yet?
   - ❑ No (Go to question 3)
   - ❑ Yes (Go to question 4)

3. Does your institution have future plans beyond 12 months for becoming involved in digitization?
   - ❑ No
   - ❑ Yes

4. What hinders your efforts at digitization?
   (Rank top 3 from 1 through 3, with 1 representing the most important and 3 representing the least important.)
   - ____ Lack of funds to support digitization
   - ____ Other projects have higher priorities
   - ____ Do not see a role for our institution in digitization
   - ____ Do not see the usefulness of digitization for our institution
   - ____ Digitization might reduce the number of people going to the institution
   - ____ Lack of available expertise
   - ____ Concern about costs of preservation and management
   - ____ Other (Please list) _____
   - ____ Not applicable

5. What are the primary goals for your institution's digitizing activities? (Rank top 3 from 1 through 3, with 1 representing the most important and 3 representing the least important.)
   ____ Preserve materials of importance or value
   ____ Increase access to books, journals, documents and other materials
   ____ Increase access to the collections and collections records
   ____ Reduce damage to original materials
   ____ Provide access to digital collection on a web site
   ____ Increase interest in the institution
   ____ Save space in the institution
   ____ Save cost by eliminating duplication of materials
   ____ Encourage the cooperation among institutions to increase the number and variety of materials available to patrons
   ____ Provide greater information about the institution's collection s to artists, scholars, students teachers, and the public
   ____ Present more of the collection than is on display at any one time
   ____ Increase access to state services
   ____ Support educational programs
   ____ Other (Please list) _____
   ___ Not applicable

6. What digitization activities or projects are funded by your institution?
   ❑ No activities or projects are currently supported (Go to question 9)
   ❑ Yes (Check all that apply)
      ❑ Funds for digitizing library collections
      ❑ Funds to digitize special collections (like rare books or historical documents)
      ❑ Funds to support cooperative digitizing projects or partnerships
      ❑ Funds to access digital products, e.g., historical collections on-line
      ❑ Funds to support statewide digitizing projects
      ❑ Funds to support inter-state digitizing efforts
      ❑ Other (Please list) _____

7. How does your institution undertake its digitization activities? (Check all that apply)
   ❑ A special unit performs these activities
   ❑ New staff was hired to perform these activities
   ❑ Current staff was trained to perform these activities
   ❑ These activities are outsourced
   ❑ Other (Please list) _____
   ❑ Not applicable

8. Does your institution cooperate with other organizations to develop digitization programs, e.g., partnerships, consortia, etc.?
   - ❑ No (Go to question 9)
   - ❑ Yes—(Check all that apply)
     - ❑ State library associations
     - ❑ State library agency
     - ❑ Academic libraries
     - ❑ Individual public libraries
     - ❑ Museums
     - ❑ State museum associations
     - ❑ Consortia
     - ❑ Private companies
     - ❑ State archives
     - ❑ Special libraries
     - ❑ Private libraries
     - ❑ Historical societies
     - ❑ Other state government agencies
     - ❑ City government agencies
     - ❑ County government agencies
     - ❑ Other local government agencies
     - ❑ Federal government agencies
     - ❑ Foundations
     - ❑ Universities
     - ❑ Professional associations
     - ❑ Community organizations
     - ❑ Other (Please list) _____

9. Does your institution have a role in digitization projects in other libraries, museums or institutions, besides your own?
   - ❑ Yes (Go to question 10)
   - ❑ No (Go to question 11)

10. What role does your institution have in digitization efforts beyond your institution? (Check all that apply)
    - ❑ Promote digitizing
    - ❑ Coordinating state-wide, regional or consortial digitization activities
    - ❑ Identify the materials or collections to be digitized
    - ❑ Provide financial support
    - ❑ Provide staff or equipment for digitization projects
    - ❑ Undertake demonstration projects on digitizing
    - ❑ Set policies or standards on digitizing, selecting materials and collections for digitizing
    - ❑ Provide Best Practices and Guidelines
    - ❑ Provide information to local libraries or museums on digitizing, management of digital collections
    - ❑ Encourage cooperative digitizing projects
    - ❑ Issue sub-grants for digitization
    - ❑ Other (Please list) _____
    - ❑ Not applicable

11. Where do you currently obtain funds to support your digitizing efforts? (Check all that apply)

- ❑ Endowment funds
- ❑ Foundation grants
- ❑ Gifts from donors
- ❑ Grants from other Federal agencies, e.g., Dept of Ed, NEH
- ❑ IMLS LSTA State Program and National Leadership Grants
- ❑ IMLS Museum National Leadership Grants
- ❑ In-kind contributions
- ❑ Matching funds
- ❑ Operating funds
- ❑ Other local funds
- ❑ State funds
- ❑ City government funds
- ❑ County government funds
- ❑ Other local government funds
- ❑ Other (Please list)

  _____

- ❑ We have no funding for digitization

12. Where do you plan to obtain future funds to support your digitizing efforts? (Check all that apply)

- ❑ Endowment funds
- ❑ Foundation grants
- ❑ Gifts from donors
- ❑ IMLS LSTA State Program and National Leadership Grants
- ❑ IMLS Museum National Leadership Grants
- ❑ In-kind contributions
- ❑ Matching funds
- ❑ City government funds
- ❑ County government funds
- ❑ Grants from other Federal agencies, e.g., Dept of Ed, NEH
- ❑ Other local government funds
- ❑ Other local funds
- ❑ State funds
- ❑ Other sources (Please list)

  _____

- ❑ We do not plan to seek funding for digitizing

13. Does your institution have digitization policies in place or in development?

- ❑ No
- ❑ Yes, our institution has policies in development for the following: (Check all below that apply)
  - ❑ Access
  - ❑ Best practices
  - ❑ Conversion of digital files to next generation formats
  - ❑ Digital format, e.g., TIFF, GIF, PAL
  - ❑ Intellectual property issues
  - ❑ Materials to be digitized
  - ❑ Priorities for digitization
  - ❑ Preservation
  - ❑ Quality control
  - ❑ Standards
  - ❑ Evaluation
  - ❑ Other (Please list)

    _____

14. Does your institution have digitization policies in place or in place?

- ❑ No
- ❑ Yes, our institution has policies in place on the following: (Check all below that apply)
  - ❑ Access
  - ❑ Best practices
  - ❑ Conversion of digital files to next generation formats
  - ❑ Digital format, e.g., TIFF, GIF, PAL
  - ❑ Intellectual property issues
  - ❑ Materials to be digitized
  - ❑ Priorities for digitization
  - ❑ Preservation
  - ❑ Quality control
  - ❑ Standards
  - ❑ Evaluation
  - ❑ Other (Please list)

_____

Section on Digitized Materials and Programs

1. What materials has your institution selected for digitization? (Check all that apply)

- ❑ Course material
- ❑ Education and training material about the collections
- ❑ Films, videotapes
- ❑ Government publications
- ❑ Historical documents/archives
- ❑ Images of artifacts
- ❑ Images of items in the collections, e.g. art work, furniture, plants, animals
- ❑ Information on the institution
- ❑ Journals
- ❑ Manuscripts
- ❑ Maps
- ❑ Music (recorded sound)
- ❑ Newspapers
- ❑ Photographs
- ❑ Rare books
- ❑ Other books
- ❑ Records about the collection
- ❑ Sheet music
- ❑ Special exhibits
- ❑ Theses and dissertations
- ❑ Other (Please list) _____
- ❑ Not applicable

2. What material is your institution planning on digitizing, but has not done so yet? (Check all that apply)

- ❑ Course material
- ❑ Education and training material about the collections
- ❑ Films, videotapes
- ❑ Government publications
- ❑ Historical documents/archives
- ❑ Images of artifacts
- ❑ Images of items in the collections, e.g. art work, furniture, plants, animals
- ❑ Information on the institution
- ❑ Journals
- ❑ Manuscripts
- ❑ Maps
- ❑ Music (recorded sound)
- ❑ Newspapers
- ❑ Photographs
- ❑ Rare books
- ❑ Other books
- ❑ Records about the collection
- ❑ Sheet music
- ❑ Special exhibits
- ❑ Theses and dissertations
- ❑ Other (Please list) _____
- ❑ Not applicable

3. Are your digital products listed with any digital registry? For example, the Association for Research Libraries' Digital Initiatives Database.

- ❑ No
- ❑ Yes (Please list)_____
- ❑ Not applicable

4. Are your digital products listed in your institution's catalogue?

- ❑ No
- ❑ Yes
- ❑ Not applicable

5. Does your institution allow access to its digital collection by the public?
   - ❑ Yes, on the premises on our computer network (LAN) only
     - ❑ Some of the collection
     - ❑ All of the collection
   - ❑ Yes, on the Web
     - ❑ Some of the collection
     - ❑ All of the collection
   - ❑ Yes, through a third party (e.g., AMICO)
     - ❑ Some of the collection
     - ❑ All of the collection
   - ❑ No, we do not provide access to our digital collection

6. Who can access your institution's digital materials without a charge for service? (Choose all that apply)
   - ❑ Anyone with Internet access
   - ❑ Visitors onsite at the institution
   - ❑ The institution's members (e.g., library card holders, museum members)
   - ❑ Staff members
   - ❑ Staff at other institutions (e.g., library staff, museum staff)
   - ❑ Researchers/scholars
   - ❑ Faculty at your institution
   - ❑ Teachers not part of your institution
   - ❑ Current students at affiliated institutions
   - ❑ Any student
   - ❑ Alumni
   - ❑ Outside researchers and scholars
   - ❑ Other (Please list)

     _____
   - ❑ Not applicable

7. Who do you consider your primary target audience for your institution's digital materials? (Choose the top three target audiences)
   - ❑ Anyone with Internet access
   - ❑ Visitors onsite at the institution
   - ❑ The institution's members (e.g., library card holders, museum members)
   - ❑ Staff members
   - ❑ Staff at other institutions (e.g., library staff, museum staff)
   - ❑ Researchers/scholars
   - ❑ Faculty at your institution
   - ❑ Teachers not part of your institution
   - ❑ Current students at affiliated institutions
   - ❑ Any student
   - ❑ Alumni
   - ❑ Outside researchers and scholars
   - ❑ Other (Please list)

     _____
   - ❑ Not applicable

Section on IMLS Role

1. Considering the needs of your institution, how should IMLS support implementation of appropriate technologies that will best support your museum or library?
(Rank the top 3 from 1 through 3, with 1 representing the most important and 3 representing the least important.)
____ Identify and promote standards and best practices in museum and library technology
____ Assess and report on the status of technology adoption and implementation in libraries and museums
____ Identify advantages of implementing them
____ Identify guidelines for the costs and resources required to implement them
____ Inform libraries and museums about cost effective technologies and efficient implementation of them
____ Help museums and libraries to evaluate the effectiveness of their technologies
____ Identify and provide information about model technology implementations
____ Inform libraries and museums about available and appropriate technologies
____ Provide funding
____ Provide information on sources of funding
____ Other (Please list) _____
____ Don't know what IMLS' role is or should be
____ IMLS does not have a role in technology implementation

2. Considering the needs of the entire museum and library community, how can IMLS support implementation of appropriate technologies that will best serve the community?
(Rank the top 3 from 1 through 3, with 1 representing the most important and 3 representing the least important.)
____ Identify and promote standards and best practices in museum and library technology
____ Assess and report on the status of technology adoption and implementation in libraries and museums
____ Inform us about available and appropriate technologies
____ Identify advantages of implementing them
____ Identify guidelines for the costs and resources required to implement them
____ Inform us about cost effective technologies and efficient implementation of them
____ Help us to evaluate the effectiveness of our technologies
____ Identify and provide information about model technology implementations
____ Provide funding
____ Provide information on sources of funding
____ Other (Please list) _____
____ Don't know what IMLS' role is or should be
____ IMLS does not have a role in technology implementation

3. How should IMLS be involved in digitization initiatives in museums and libraries? (Rank the top 5 from 1 through 5, with 1 representing the most important and 5 representing the least important.)

____ Inform museums and libraries about the advantages and challenges of digitization
____ Identify and provide information about model digitization projects
____ Provide referral information on projects, resources, standards, guidelines, etc.
____ Identify the processes involved and best practices available
____ Identify the costs and resources required to develop, manage and maintain access to digital resources
____ Help libraries and museums to evaluate the effectiveness of their digitization projects
____ Lead and promote national digitization efforts
____ Lead a digital library for education initiative to support development of a Web portal/Web site to enable users to search museum and library digital resources
____ Coordinate digitization projects among institutions
____ Encourage partnerships or consortia to collaborate on digitization
____ Fund digitization projects
____ Identify other sources of funding
____ Set standards for digitization
____ Assist in standards adoption
____ Help libraries and museums understand and deal with intellectual property issues
____ Other (Please list) _____
____ Don't know what IMLS' role is or should be
____ IMLS does not have a role in digitization efforts

4. How can IMLS support digitization in your institution?
(Rank the top 5 from 1 through 5, with 1 representing the most important and 5 representing the least important.)

____ Inform us about the advantages and challenges of digitization
____ Identify and provide information about model digitization projects
____ Provide referral information on projects, resources, standards, guidelines, etc.
____ Identify the processes involved and best practices available
____ Identify the costs and resources required to develop, manage and maintain access to digital resources
____ Help us to evaluate the effectiveness of our digitization projects
____ Lead and promote national digitization efforts
____ Lead a digital library for education initiative to support development of a Web portal/Web site to enable users to search museum and library digital resources
____ Coordinate digitization projects among institutions
____ Encourage partnerships or consortia to collaborate on digitization
____ Fund digitization projects
____ Identify other sources of funding
____ Set standards for digitization
____ Assist in standards adoption
____ Help us understand and deal with intellectual property issues
____ Other (Please list) _____
____ Don't know what IMLS' role is or should be
____ IMLS does not have a role in digitization efforts

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Office of Educational Research and Improvement (OERI)
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